

Louisiana State University of Alexandria
Department of Allied Health

Medical Laboratory Science MLT to MLS Program



2024-2025

Online MLS Student Handbook

Louisiana State University of Alexandria

MEDICAL LABORATORY SCIENCE MLT TO MLS PROGRAM

PREFACE

This handbook is prepared for use by students enrolled in the Bachelor of Science in Medical Laboratory Science Program and contains information specific to this program. The information in this handbook is not intended to be wholly independent, but instead, a complement to the LSUA General Catalog and the LSUA Student Handbook which are maintained and published by Louisiana State University of Alexandria. For general policies, see the LSUA General Catalog and the LSUA Student Handbook.

The purpose of this Handbook is to provide guidelines to aid students through the Medical Laboratory Science Program at Louisiana State University of Alexandria and provide you an understanding of our policies. To accomplish this, it is important that you know and understand exactly what is expected of you. This handbook should help you realize what is expected of you as a student in a healthcare profession. Should you need further clarification or have additional questions, feel free to contact the Program Coordinator.

The information in this handbook is current at the time of printing. However, policies, guidelines, and procedures are subject to change. The information in this Handbook is **SUBJECT TO CHANGE**. The Program **RESERVES THE RIGHT** to modify any statement; the policies as written may be modified, superseded, or eliminated. Final interpretation of program policies and procedures will be made by the program's faculty. You will be notified of any such changes.

Not every circumstance can be predicted. Any area not covered in this Handbook will be dealt with on an individual basis. In addition to this Handbook, students should also be aware of the LSUA [General Catalog](#) and Student Handbook which can be found at the [LSUA](#) website; we urge you to study these materials.

Revised:

10/2017	12/2018	10/2021	8/2023
03/2018	06/2020	07/2022	5/2024
09/2018	02/2021	06/2023	

Table of Contents

Section I: General Information	5
Program Overview	6
Program Purpose	6
Program Mission	6
Program Accreditation	6
Program Outcomes	7
Program Goals	7
Admission Requirements	8
Progression Requirements	8
Program Curriculum	9
Course Sequencing	9
Section II: Policies and Guidelines	11
Louisiana State University- Alexandria Policies	12
Probation Policy	12
Academic Standing Policy	12
LSUA Medical Laboratory Science Policies	12
Confidentiality Policy	13
Advisement Policy	13
Guidelines for Academic Counseling	13
Code of Student Conduct	13
Code of Ethics	13
Student Grievance Policy	15
MediaLab/Capstone Exam	16
Competencies	17
CastleBranch	17
Certification Exams and Licensure	18
SECTION III: Competency Forms	19
MLT to MLS (online) Clinical Competency Checklist	20
Clinical Chemistry	20
MLT to MLS (online) Clinical Competency Checklist	27
Clinical Hematology	27

MLT to MLS (online) Clinical Competency Checklist.....	36
Clinical Microbiology(8/2023)	36
MLT to MLS (online) Clinical Competency Checklist.....	45
Clinical Immunohematology/Serology (Aug 2023).....	45

Section I: General Information

Louisiana State University at Alexandria
Department of Allied Health
Online Bachelor of Science in Medical Laboratory Science

Program Overview

Licensed, working, Medical Laboratory Technicians (MLT) who wish to earn a Bachelor of Science in Medical Laboratory Science may elect to enroll in the LSUA MLT to MLS Online Program. The goals of the program are to facilitate educational mobility from the Medical Laboratory Technician at the Associate degree level to the Medical Laboratory Scientist at the Bachelor degree level, and to equip students with the knowledge and skills that will make them eligible for employment as Medical Laboratory Scientists (MLS). The program offers 100% online courses of seven-week duration in Medical Laboratory Science with multiple starting dates throughout the year.

Program Purpose

The purpose of the program is to offer a Bachelor of Science Degree in Medical Laboratory Science. The program will offer a curriculum integrating basic science, liberal arts, and technical courses which provide a learning structure to fulfill the universities expected student outcomes, program goals, accreditation requirements and community needs.

Program Mission

Louisiana State University at Alexandria provides an affordable Baccalaureate degree in Medical Laboratory Science in a robust academic environment that prepares quality graduates who will possess the knowledge, competency and skills necessary to become a successful Medical Laboratory Scientist. The program prepares graduates to meet the healthcare needs of laboratory medicine both locally and nationally.

Program Accreditation

The Bachelor of Science in Medical Laboratory Science Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) N. 5600 River Road, Suite 720 • Rosemont, IL 60018-5119 • ph. 773-714-8880 • fax 773-714-8886 • website www.naacls.org.

Students who successfully complete the program are eligible to seek national certification through completion of a national certification exam.

Program Outcomes

To prepare graduates to:

- Demonstrate cognitive, psychomotor, and affective skills necessary to fulfill the roles and responsibilities of the Medical Laboratory Scientist.
- Demonstrate technical skills and delivery of reliable results with assurance and confidence in performing laboratory tasks.
- Demonstrate appropriate professional communication skills, attitudes, and ethics required of Medical Laboratory Scientist.
- Integrate the role and services of Medical Laboratory Scientists with the roles and services of other health care professionals in the delivery of patient care to the consumer/public.
- Recognize continuing education is necessary for maintenance, certification, and recertification as health care professionals.
- Be academically prepared to apply and seek national certification by examination through American Society for Clinical Pathology, Board of Certification (ASCP-BOC) or equivalent national certification exam.

Program Goals

- Provide the community with competent Medical Laboratory Scientists who can function in all areas of Medical Laboratory Science at professional entry levels in medical facilities or industry locally and nationally.
- Create a learning structure that will allow students to meet expected academic outcomes and professional entry level competencies.
- Provide students with the knowledge and skills to allow them to pass a national certification examination in Medical Laboratory Science.
- Maintain the level and quality of instruction in the medical laboratory courses by seeking to include the latest in technological advances and by identifying needs of the program.
- Design learning opportunities for students to:
 1. Demonstrate technical skills and the ability to deliver reliable results with assurance and confidence in performing laboratory tasks.
 2. Cultivate appropriate professional communication skills, attitudes, and ethics required of medical laboratory professionals.
 3. Value the service Medical Laboratory Scientists render to the consumer public and other health care professionals.
 4. Appreciate the role of other laboratory and health care professionals in the delivery of patient care.
 5. Gain understanding that continuing education and professional development are lifelong pursuits necessary for the maintenance and growth as health care professionals.

Admission Requirements

1. Students must be unconditionally admitted to the university and declare Medical Laboratory Science (MLS) as their major.
2. **Students must have attained an overall college grade point average of at least 2.5.**
3. Students must have completed with a grade of “C” or higher all courses listed under the General Education Requirements and Additional Requirements sections of the MLSC curriculum.
4. Students must be able to meet the program’s technical standards/essential requirements.
5. Students must be graduates of an MLT/CLT Associate degree program accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS).
6. Students must hold certification as an MLT (ASCP), CLT (NCA) or equivalent.
7. Student must be currently working as a licensed CLT/MLT.
8. Military personnel who completed the 50-week training program and hold ASCP Certification may have an alternate path to this program. Please email online@lsua.edu if you meet these criteria for additional information about admissions options.

Progression Requirements

The following progression criteria apply to the student’s progress prior to and after enrollment in the MLT to MLS program:

1. Student must earn a grade of “C” or higher in each course required by the curriculum.
2. Student must maintain an overall grade point average of at least 2.0.
3. Student must complete Safety Verification Exam, located under *MLSC Competency, Safety, and Capstone Verification Site* course on Moodle, as soon as possible but no later than the first MLSC course.
4. Student must complete LSUA MLS Program Capstone Exam, located under *MLSC Competency, Safety, and Capstone Verification Site* course on Moodle, prior to completing the program.
5. Student must submit the completed Chemistry, Hematology, Microbiology, and Immunohematology competency checklists signed by the Clinical Mentor. Each of these competencies correspond with MLSC 3020 Advanced Clinical Chemistry, MLSC 4010 Clinical Project: Hematology, MLSC 4020: Clinical Project-Clinical Chemistry, MLSC 4030: Clinical Project- Immunohematology, MLSC 4040: Clinical Project- Microbiology. Each of these competency checklists is located under *MLSC Competency, Safety, and Capstone Verification Site* course on Moodle. The competency checklists must be completed, signed, and submitted before a student can graduate

Note: Students may be dismissed from the program if they fail on a second attempt to complete a MLSC course with a “C” or higher.

Program Curriculum

General Education Requirements:

ENGL 1001	English Composition I
ENGL 1002	English Composition II
PSYC 2000	General psychology
Social Science	Gen Ed Elective
MATH 1021	College Algebra
MATH 2011	General Statistics
BIOL 1161	Human Anta and Phys I
CHEM 1201	General Chemistry I
CHEM 1202	General Chemistry II
CMST 1061/2060	Public Speaking
Humanities	Gen Ed Elective (any 2)
FIAR ****	FIAR Elective (any 1)

Major Requirements:

MLSC 3000	Advanced Hematology
MLSC 3010	Advanced Immunohematology
MLSC 3020	Advanced Clinical Chemistry
MLSC 3030	Advanced Pathogenic Microbiology
MLSC 3040	Molecular Diagnostics
MLSC 3050	Professional Practices Seminar I
MLSC 4000	Professional Practices Seminar II
MLSC 4010	Clinical Project- Hematology
MLSC 4020	Clinical Project- Clinical Chemistry
MLSC 4030	Clinical Project: Immunohematology
MLSC 4040	Clinical Project Microbiology

Additional Requirements:

BIOL 1162	Human Anatomy and Physiology II
BIOL 2151	General Microbiology
BIOL 4110	Biochemistry
BIOL 4192	Virology
CHEM 1301	General Chemistry Laboratory I
CHEM 1302	General Chemistry Laboratory II
CHEM 2001	Analytical Chemistry
CHEM 3261	Organic Chemistry Concepts
CHEM 3160	Organic Chemistry Laboratory Concepts

Students who have graduated from a NAACLS accredited associate degree MLT, with fewer than 24 Medical Laboratory Science course credits, will be required to take additional courses to meet overall program hours (i.e., 120 hours).

Course Sequencing

Course sequencing for the MLT to MLS student is dependent on entry date. There are six starting dates throughout the year. Courses are offered in a 7-week online format. *Course sequencing will vary with entry point.* Upon admission to the program an individualized curriculum plan will be developed for each student by an assigned advisor.

Program Contact Information

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Section II: Polices and Guidelines

Louisiana State University- Alexandria Policies

All Medical Laboratory Science students must comply with the policies and procedures as stated in the LSUA College catalog and the Student Responsibilities and Student Rights as stated in the student handbook.

Probation Policy

The purpose of the probation policy is to describe student rights and responsibilities and consequences regarding grades and professional behavior. Probation is intended to be a constructive means of identifying and correcting areas of deficient student performance. Circumstances of probation will be clearly documented in an academic counseling meeting and report.

Academic Standing Policy

The Academic Standing Policy for Louisiana State University-Alexandria is clearly stated in the College Handbook and can be found on the University website www.lsua.edu under Current Students - Policies and Procedures as well as being found in the [LSUA College Catalog](#); all College policies pertain as well to the MLS Program.

Americans with Disabilities Act (ADA)

In accordance with the requirements of the Americans with Disabilities Act (ADA) and the regulations published by the United States Department of Justice 28 C.F.R, 35.107(a), LSUA's designated ADA Coordinators are the office of Student Services. Student Services shall be responsible for coordinating the University's efforts to comply with and carry out its responsibilities under ADA. Students with disabilities requiring physical, classroom, or testing accommodations should contact the Student Services office at LSUA

LSUA Medical Laboratory Science Polices

The following progression criteria apply to the student's progress prior to and after enrollment in the MLT to MLS program:

1. Student must earn a grade of "C" or higher in each course required by the curriculum.
2. Student must maintain an overall grade point average of at least 2.0.
3. Student must complete Safety Verification Exam, located under *MLSC Competency, Safety, and Capstone Verification Site* course on Moodle, as soon as possible but no later than the first MLSC course.
4. Student must complete LSUA MLS Program Capstone Exam, located under *MLSC Competency, Safety, and Capstone Verification Site* course on Moodle, prior to completing the program.
5. Student must submit the completed Chemistry, Hematology, Microbiology, and Immunohematology competency checklists signed by the Clinical Mentor. Each of these competencies correspond with MLSC 4010 Clinical Project: Hematology, MLSC 4020: Clinical Project-Clinical Chemistry, MLSC 4030: Clinical Project- Immunohematology, MLSC 4040: Clinical Project- Microbiology. Each of these competency checklists is

located under *MLSC Competency, Safety, and Capstone Verification Site* course on Moodle and in CastleBranch.

Confidentiality Policy

The purpose of the confidentiality policy is to ensure student privacy and safety. The information concerning student records maintained by Louisiana State University-Alexandria is provided in compliance with the Federal Education Rights and Privacy Act of 1974, as Amended. The student may refer to the College Catalog for the specifics on this Act.

Advisement Policy

The purpose of the advisement policy is to clarify opportunities for regular academic counseling. Routine academic counseling is scheduled at least one time per semester for each student. Counseling provides an opportunity for student and instructor to discuss strengths and areas of concern, reviewing overall performance in the program. This also provides an opportunity to anticipate needs and to set goals. Counseling may be initiated by either a student or an MLS faculty member at any time.

Guidelines for Academic Counseling

1. A routine review of student's academic progress.
2. A routine review of a student's clinical progress.
3. Objective description of any incident or concern.
4. Specific factors influencing student performance; positive and negative; time and place recorded.
5. Instructor's recommendations to assist the student in improving performance.

Code of Student Conduct

LSU Alexandria has adopted a Code of Conduct that established reasonable standards of academic and personal conduct for students. This policy is generally administered by the Provost and Vice Chancellor of Student and Academic Affairs. This policy may be found at the following website: [LSUA Code of Student Conduct](#).

Code of Ethics

The purpose of the code of ethics policy is to ensure professional behavior in all students participating in the Medical Laboratory Science Program:

1. Each student shall attend and participate in all learning experiences designed to meet the objectives of the course(s) in which he/she is enrolled.
2. Each student shall identify the need for any reasonable accommodation required to successfully complete the learning objectives of each course.
3. If a student believes that a course is not meeting his or her learning needs the student shall initiate discussion with the course instructor as soon as the problem is perceived.

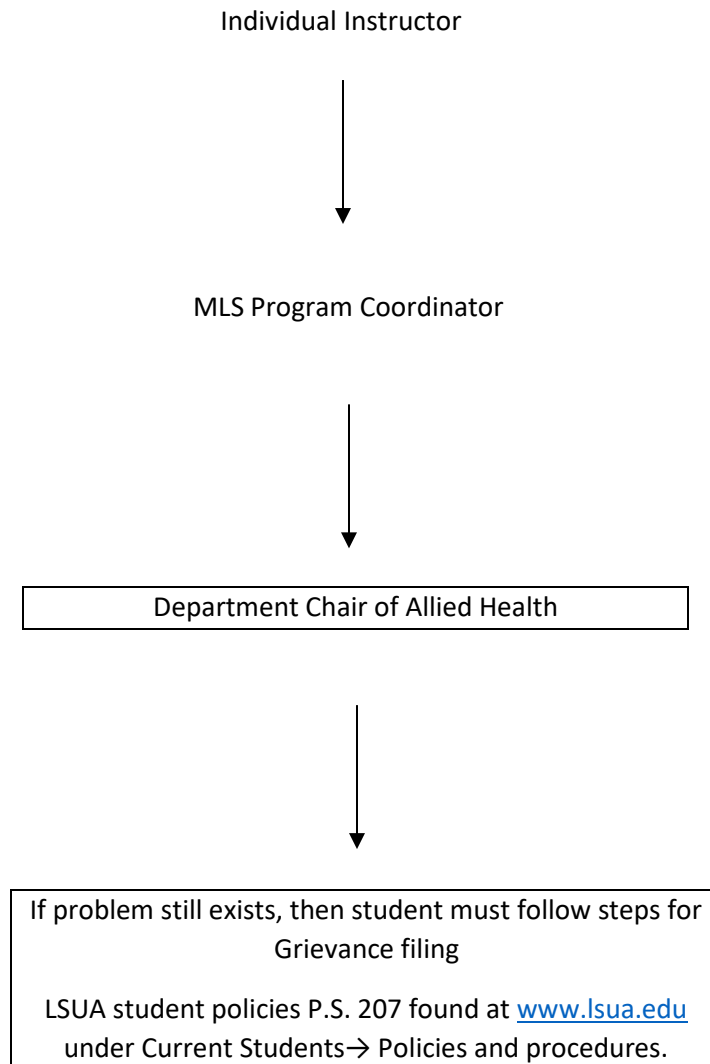
4. Upon completion of course work, each student shall complete an honest, written evaluation of each course in which the student is enrolled.
5. Each student shall engage in open discussion with his/her MLS instructor or Program Coordinator, pertaining to any factor interfering with acceptable progress in the course of study.
6. Each student shall adhere to all rules and regulations related to participation in the clinical placement.
7. In clinical, each student will engage in only those activities for which he/she has been trained, minimizing the probability of harm to the patient.
8. Each student shall recognize the rights and professional standing of colleagues in their respective professions.
9. Information received from a patient will be discussed only for professional purposes and in private.
10. Patient information will be discussed in classes in a way that the confidentiality of the individual is maintained.
11. Written reports will be presented in an objective manner. Subjective data will be identified as such.
12. Each student is responsible for knowing and adhering to all rules, regulations, policies, and procedures of the LSUA, MLS program, and clinical facilities.
13. Each student will be prepared for all classes, labs, and clinical assignments. This includes reading assignments before class, actively participating and allowing others to participate in learning opportunities and being attentive to the instructor and other students.

The standards of ethics and conduct for the Medical Laboratory Science student is dictated by those moral and personal qualities inherent in the profession. The program faculty will take appropriate action regarding conduct which:

- Is brought to the attention of the program as being problematic to self or others.
- Is observable and clearly dictates anti-social behavior, irresponsibility or destructiveness.
- Directly reflects on the MLS program or profession in a negative manner.
- Clinical affiliates agree student behavior demonstrates student is not prepared for clinical rotation.

Student Grievance Policy

The student chain of command for filing grievances in the MLS Program is illustrated through the flow chart presented below:



MediaLab/Capstone Exam

MLS students will use LAB CE to demonstrate competency on the Capstone Exam; you are required to have access throughout your program.

The MLS Comprehensive Capstone Exam must be completed with a 70% completion rate (out of 100 questions). This exam may be taken multiple times. In this exam, you'll see a number of questions covering the topic areas you've selected. Navigate backwards and forwards using the arrow buttons in the upper-right corner of the page. Answer each question by choosing the correct response(s), then click on OK.

This test is designed to determine your level of ability in answering questions for the ASCP Board of Certification exam. Questions are defined by difficulty, level 1 (easiest) through level 9 (hardest). If you miss a question, the level of the next question will be a level lower. As you get a question correct, the level of the next question will be a level higher.

If you take this exam multiple times, you may notice a higher level of repetition in the questions you see.

Your response will be recorded, but you will be able to change your answer until you reach the end of the exam and click Finish Exam. At that time, your responses will be graded, and you'll get your final score. You'll have the opportunity to review the correct answers and feedback for the questions in this exam as well.

Once you've finished the exam, you may return to any question. Click on Summary to return to the list of questions. You may navigate freely throughout the questions in this exam using the scrolling list to the left. Click on any question name to view it. Questions that you have attempted, answered correctly, or answered incorrectly will be indicated by colored icons.

You will be able to purchase one of two ways:

1. LSUA Bookstore - you may use financial aid if available
2. Directly from Media Lab <http://www.labce.com>
 1. Select BOTH CE for MLS/MLT AND
 2. Exam Simulator for MLS/MLT
3. Enter PROMO CODE: LSUESCOMBO (no spaces, all capital) to get LSUA group price.
4. Once you are logged in, go to your profile page, select the option to pair your account to LSUA. The LSUA account number is 123520

This will give you access for one year. You can renew as an existing user once access expires and your work will be retained. It is highly recommended that you continue practicing in the exam simulator until you sit for the national board exam. For the purpose of the MLS program, you are required to earn at least 70% on the exam (out of 100 questions). The software allows you to repeat as many times as needed.

Competencies

Students in the MLS Program must demonstrate competency in a variety of areas.

The checklists describe the competencies required in the areas of Chemistry/Urinalysis; Hematology/Coagulation/Phlebotomy/ Body Fluids; Microbiology/Parasitology/Mycology; and Immunohematology/Serology.

Competency Checklists must be submitted before a student applies for graduation. Due to MLS position vacancies, laboratories made a variety of decisions to compensate for the vacancies. Students should discuss the best way to organize and plan for their Clinical Training with their laboratory managers.

Students must wear their LSUA ID Card when they are in their Clinical Training. This policy protects students, the lab, and LSUA from any liability issues.

It is the student's responsibility to find a mentor/s for a particular clinical area. Students should work together with their respective mentor/s (work site, former MLT affiliate preceptor, MLT educator or program director) to complete the listed objectives. It is requested that the student laboratory competency evaluation be completed by the clinical mentor in the presence of the student and allow verbal feedback to the student.

Print the checklists and have your lab manager/mentor/preceptor complete and sign the form. Submit once completed. Completed competency checklists are required to graduate from the program. * If a student does any part of their training in a location where the student is not employed, a Facility Fact Form must be completed, signed and emailed to the MLS Program Director (NAACLS requirement for accreditation).

CastleBranch

For those students beginning the LSUA MLT to MLS program after Summer 2023, all Competencies will be submitted through a third-party vendor (*CastleBranch*). If you began the MLS program prior to Summer 2023, you will continue to upload documents in this Moodle site. This includes your 4 competency checklists.

The following documents must be completed/signed and submitted to *CastleBranch*:

- Receipt of Student handbook form
- Confidentiality Release of information form
- Infection Control form – signed by student
- MLS Essential functions - signed by student
- *Facility Fact Form: This is a form required by NAACLS to be completed, signed, and returned to LSUA prior to starting your first MLS Course. Your lab manager should fill it out and give it to you to submit via CastleBranch.

Please refer to MLSC Competency, Safety, and Capstone Verification Site for specific access instructions.

Certification Exams and Licensure

Upon successful completion of the MLS Program and the Bachelor of Science in Medical Laboratory Science, the student will be eligible to take national certification exams by the American Society for Clinical Pathology (ASCP (BOC)) and the American Medical Technologists (AMT) organization.

Students are not required to take a certification exam in order to graduate from the MLS program.

There are currently 11 states with laboratory personnel licensure (California, Hawaii, Florida, New York, North Dakota, Tennessee, Louisiana, Nevada, West Virginia, Montana, Georgia). Puerto Rico also has licensure. The components of the law vary state-to-state, but usually includes an annual licensing fee (some are bi-annual), a provision for continuing education, and minimum education and professional competency requirements.

If a Medical Laboratory Scientist (MLS) plans to locate in a state with licensure, that state should be contacted for specific information relative to that state's laboratory practice act.

SECTION III: Competency Forms

**Louisiana State University-Alexandria
Medical Laboratory Science Program (online)**

**MLT to MLS (online) Clinical Competency Checklist
Clinical Chemistry**

Student Name: _____ **Clinical Facility:** _____

Student LSUA ID #: P _____

Clinical Chemistry Competency Objectives:

The student in clinical practice will:

1. Perform proper skills to safely handle/perform tests on known and unknown specimens
2. Demonstrate proper procedures to collect and evaluate specimens for clinical chemistry area in the clinical laboratory.
3. Demonstrate proper procedure to perform and document quality controls checks, calibration checks and instrument maintenance if required.
4. Successfully perform and interpret testing on blood and body fluids as well as extended testing related to the routine clinical chemistry area on given specimens. Testing should include but not be limited to:
 - a. Basic Metabolic Profiles
 - b. Comprehensive Metabolic Profiles
 - c. Diabetes Profiles
 - d. Thyroid Profiles
 - e. Lipid Profiles
 - f. Liver Function Testing
 - g. Blood Gas Analysis
 - h. Electrolyte testing
 - i. Toxicology and therapeutic drug monitoring
 - j. Enzyme testing
 - k. Specialized chemistry testing
5. Successfully calculate any physiological measures such as but not limited to anion gap, osmolal gap. Students should then be able to relate these results to conditions in the body.
6. Apply biochemical findings based on clinical chemistry laboratory results of blood and body Fluids from manual and automated chemistry analyzers and properly identify diseases/conditions specifically those detrimental to the body.
7. If a test or calculation is marked as N/A, the student will be asked to complete an ancillary document to complete and submit along with their Competency Checklist. Lab managers/mentors are encouraged to work with their student to fulfill all items on the Checklist.

*It is the student's responsibility to find a mentor/s for a particular clinical area. Students should work together with their respective mentor/s (work site, former MLT affiliate preceptor, MLT educator or program director} to complete the listed objectives. It is requested that the student laboratory competency evaluation be completed by the **clinical mentor in the presence of student** and allow verbal feedback to the student. It is realized that students might have prior experience with clinical chemistry at different facilities. If the student is already certified by your facility as competent for any individual task listed, they do not need to repeat the laboratory assignment for that particular task.*

Levels of Achievement

COMPETENT	Following the specific test SOP, independently the student performs the procedure applying problem solving skills and interpretation of results with little or no supervision. Student's performance meets the level of competency required by the laboratory, for that task or process, for an entry level MLS.
NON-COMPETENT	Student <u>cannot</u> perform (with confidence) and or has no knowledge of the procedure including theory, basic problem solving and interpretation of results <u>And</u> performance does not meet the level of competency required by the laboratory for that task or process for an entry level MLS.
What if NON-COMPETENT	<p>If a student is found to be non-competent in a <i>clinical chemistry area</i> by a qualified mentor/s then the student will spend 40 hours outside of their work hours in that area with a qualified mentor/s and (be) reassessed by the qualified mentor.</p> <p>If a student is found non competent in a <i>specific task</i> by a qualified mentor/s then the student will spend time (varies with different tasks) outside of their work hours with a qualified mentor/s and be reassessed until found competent.</p>

To the mentor/preceptor: Evaluate the student's competency based upon meeting the listed criteria below for each task at least 90% of the time the task is performed. The criteria to grade student's competency is as follows:

- 1. Adheres to established laboratory safety procedures for handling and disposing of specimens and potentially infectious products**
- 2. Performs test and Q.C. with precision and accuracy**
- 3. Interprets tests results accurately**
- 4. Recognizes error and can initiate corrective action**
- 5. Correlates test results to clinical diagnosis**

Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
General Chemistry (Profiled or Individual)						
Orientation to the Chemistry Laboratory & Safety Protocol						
Proper use and location of Safety Data Sheets.						
Label specimens in accordance with the facility's policy. Check for labeling compliance on all samples (eg.name discrepancy)						
Correctly identifies the specimen type by the facility's requirements.						
Follows proper specimen collection and storage for routine chemistry assays.						
Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
Identify physical characteristics of samples that may interfere with testing.						
Demonstrate understanding of when to use and proper use of Pipettes (volumetric/serologic/micropipettes)						
Perform dilutions & calculations on patient samples with accuracy.						
Perform daily, weekly, & monthly maintenance on Chemistry Analyzer in your lab. Please list analyzer(s) <ul style="list-style-type: none"> • • 						
Properly reconstitute control or reagents using pipettes routinely used in the lab.						
Perform QC procedures in chemistry lab in accordance with the clinical facility's policy.						

Perform Calibration on instrument and analytes in accordance with the clinical facility's policy.						
Take actions taken when results are not within acceptable limits and correctly documents them.						
Perform serum/plasma glucose on fasting and random samples.						

Perform or discuss Glucose Tolerance Tests (GTT)						
Perform or discuss Glycosylated Hemoglobin assays.						
Perform Na, K, Cl, CO ₂ , Ca, Mg.						
Evaluate results of electrolytes for any source of significant error.						
Perform Basic Metabolic Panels/profiles						
Perform Comprehensive Metabolic Panels/profiles						
Perform and discuss ionized calcium assays (understand collection and specimen integrity)						
Calculate and interpret Anion gaps.						
Perform Neonatal and Adult Bilirubin.						
Student demonstrate understanding of specimen integrity issues with collection of bilirubin.						
Perform Osmometry on serum /urine (freeze point or Vapor pressure depression)						
Perform CSF Chemistries (Glucose, Protein, LDH)						
Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
Perform Body Fluid Chemistries as done in your lab. List them-						
Perform Lactic acid on plasma sample.						
Perform Ammonia on plasma sample						

Perform Lipid Profile tests (HDL, LDL, Cholesterol, etc.)						
Perform Thyroid Profile tests (T3, T4, TSH)						
Perform any Endocrine function assays performed in your clinical facility.						
Perform Liver Function tests						
Perform Total Protein and Albumin assays. Calculate A/G ratios.						
Perform or discuss protein electrophoresis						
Perform and manually calculate Creatinine clearances on 24-hour urines.						
Perform TDM or Toxicology analysis on instrumentation routinely used in your lab. (List the analytes)-						
Perform all enzyme assays routinely performed in your laboratory. List the enzymes-						
Identify interfering factors associated with the enzymes analyses.						
Demonstrate collection, processing & storage of blood gas samples.						
Perform Blood gases						
Perform or discuss calibration of a blood gas analyzer. (pH, pCO ₂ , pO ₂ , HCO ₃ , %SO)						
Professional Behavior						
Student is Punctual whenever scheduled.						
Refrains from action or making statement that represent ethnic, racial or sexual harassment.						
Completes all tasks in the work area when scheduled.						
Adheres to the current dress code in the clinical facility.						

Works with other professionally in a positive manner.						
Professional Responsibility						
Correctly reports all patient results the lab LIS system.						
Recognize all patient critical test values and correctly reports them.						
Resolve any discrepancies in specimen labeling, handling, or collection before reporting results						
Maintains strict patient confidentiality						
Completes all procedures in adherence to laboratory SOPs, take no shortcuts or modifications of procedure.						
Perform and document daily & weekly maintenance procedures, preventative maintenance, temperature checks, etc.						
Observes safety precautions according to Universal precautions and the safety policies of the laboratory and facility						

Would you consider this student for potential employment as an MLS at your facility based on his/her performance?

Y ☐

N ☐

Comments: Comments assist our Program Director evaluate student ability, professionalism, and ethics.

Student Name:
(Please Print) _____

Signature & Date: _____

By signing this document, I am attesting to the fact I have the opportunity to review this evaluation and that it meets the criteria for completion of entry level competencies for MLS.

This signature does not signify that I agree or disagree with the comments or evaluation.

Mentor's Name and Credentials
(Please Print) _____

Certification Number _____

Signature/Date: _____

Mentor's Name and Credentials
(Please Print) _____

Certification Number _____

Signature/Date: _____

Mentor's Name and Credentials
(Please Print) _____

Certification Number _____

Signature/Date: _____

Mentor's Name and Credentials
(Please Print) _____

Certification Number _____

Signature/Date: _____

Lab Liaison/Manager Name and Credentials

(Please Print) _____

Signature/Date: _____

Certification Number _____

Liaison: By signing this document, I attest to the ability of the student to competently perform the tasks documented on this form and that said information is accurate.

To be filled (out) if student found Non- Competent in a Clinical Chemistry area.

Student has spent 40 hours outside of the work hours and was reassessed.

Mentor Signature: _____ Date: _____

Student Signature: _____ Date: _____

To be filled (out) if student found Non- Competent in a Specific Task.

Student has spent _____ hours (varies for different tasks) outside of the work hours and was reassessed.

Mentor Signature: _____ Date: _____

Student Signature: _____ Date: _____

The completed document must be scanned and uploaded to the MLSC Competency Verification Moodle Site. Submit all pages in vertical format & upright position.

**Louisiana State University-Alexandria
Medical Laboratory Science Program (online)**

**MLT to MLS (online) Clinical Competency Checklist
Clinical Hematology**

Student Name: _____

Clinical Facility: _____

Student LSUA ID #: _____

Clinical Hematology Competency Objectives:

The student in clinical practice will:

1. Perform proper skills to safely handle/perform tests on known and unknown specimens
2. Demonstrate proper procedures to collect and evaluate specimens for the clinical hematology, coagulation and body fluids area in the clinical laboratory.
3. Demonstrate proper procedure to perform and document quality controls checks, calibration checks and instrument maintenance in the hematology, coagulation, and body fluids area if required.
4. Successfully perform and interpret testing on blood and body fluids and extended testing related to the routine clinical hematology, coagulation and body fluids area on given specimens. Testing to include but not limited to:
 - a. Automated CBC
 - b. Normal differentials
 - c. Abnormal differentials
 - d. Reticulocyte counts
 - e. Sickle Cell Testing
 - f. Osmotic Fragility Testing
 - g. Specialized Hematology Testing
 - h. Automated and/or Manual ESR
 - i. aPTT Testing
 - j. INR Testing
 - k. Fibrinogen Testing
 - l. D-Dimer Testing
 - m. Specialized Coagulation Testing
 - n. Body fluid counts
 - o. Body fluid differential.
5. Successfully calculate any hematological measures such as but not limited to hematocrit, hemoglobin, MCH, MCV, MCHC and relate these results to conditions in the body.
6. Apply hematologic findings from manual and automated hematology, coagulation analyzers and body fluids analysis to properly identify diseases/conditions specifically those detrimental to the body.

7. Differentiate disease states based on clinical hematology, coagulation and body fluid laboratory results of blood and body fluids.
8. Demonstrate venipuncture collection techniques properly following the correct order of draw.
9. Demonstrate POCT and troubleshoot instrumentation.
10. If a test or calculation is marked as N/A, the student will be asked to complete an ancillary document to complete and submit along with their Competency Checklist. Lab managers/mentors are encouraged to work with their student to fulfill all items on the Checklist.

*It is the student's responsibility to find a mentor/s for a particular clinical area. Students should work together with their respective mentor/s (work site, former MLT affiliate preceptor, MLT educator or program director) to complete the listed objectives. It is requested that the student laboratory competency evaluation be completed by the **clinical mentor in the presence of student** and allow verbal feedback to the student. It is realized that students might have prior experience with clinical chemistry at different facilities. If the student is already certified by your facility as competent for any individual task listed, they do not need to repeat the laboratory assignment for that particular task.*

Levels of Achievement

COMPETENT	Following the specific test SOP, independently the student performs the procedure applying problem solving skills and interpretation of results with little or no supervision. Student's performance meets the level of competency required by the laboratory, for that task or process, for an entry level MLS.
NON-COMPETENT	Student <u>cannot</u> perform (with confidence) and or has no knowledge of the procedure including theory, basic problem solving and interpretation of results <u>And</u> performance does not meet the level of competency required by the laboratory for that task or process for an entry level MLS.
What if NON-COMPETENT	<p>If a student is found to be non-competent in a <i>Clinical Hematology area</i> by a qualified mentor, then the student will spend 40 hours outside of their work hours in that area and (be) reassessed by the qualified mentor.</p> <p>If a student is found non competent in a <i>specific task</i> by a qualified mentor, then the student will spend time (varies with different tasks) outside of their work hours with a qualified mentor and be reassessed until found competent.</p>

To the mentor/preceptor: Evaluate the student's competency based upon meeting the listed criteria below for each task at least 90% of the time the task is performed. The criteria to grade student's competency is as follows:

- 1. Adheres to established laboratory safety procedures for handling and disposing of specimens and potentially infectious products**
- 2. Performs test and Q.C. with precision and accuracy**
- 3. Interprets tests results accurately**
- 4. Recognizes error and can initiate corrective action**
- 5. Correlates test results to clinical diagnosis**

Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
General Hematology (Profiled or Individual)						
Orientation to the Hematology, Coagulation, Body Fluids & Safety Protocol						
Proper use and location of Safety Data Sheets.						
Label specimens in accordance with the facility's policy. Check for labeling compliance on all samples (eg.name discrepancy)						
Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
Correctly identifies the specimen type by the facility's requirements.						
Follows proper specimen collection and storage for routine Hematology, Coagulation and Body Fluid assays.						
Identify physical characteristics of samples that may interfere with Hematology, Coagulation, and Body Fluids testing.						
Demonstrate understanding of when to use and proper use of Pipettes (volumetric/serologic/micropipettes)						
Perform dilutions & calculations on patient samples with accuracy.						

Perform daily, weekly, & monthly maintenance on Hematology analyzers in your lab. Please list analyzer(s) • • •						
--	--	--	--	--	--	--

Perform daily, weekly, & monthly maintenance on Coagulation analyzers in your lab. Please list analyzer(s) • • •						
Properly reconstitute control or reagents using pipettes routinely used in the lab.						
Perform QC procedures in Hematology, Coagulation and Body Fluids lab in accordance with the clinical facility's policy.						
Perform Calibration on Hematology, Coagulation and Body Fluids instruments and analytes in accordance with the clinical facility's policy.						
Take actions taken when results are not within acceptable limits and correctly documents them.						
Perform and Interpret: Manual and/or Automated ESR						
Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
Perform and Interpret: Automated CBC						
Interpret: Critical Value/PBS/Manual Differential Protocols						

Perform and Interpret: Manual Differentials						
Perform and Interpret: Automated Differentials						
Correlates patient hematologic results to normal/hematopoietic ranges and reports critical patient values.						
Demonstrate ability to troubleshoot routine hematology instrumentation.						
Demonstrates ability to create and stain suitable blood slides for analysis						

Follows laboratory protocol in performing microscopic blood cell differentials /manual differential.						
Identifies common cellular elements in blood smear analysis accurately.						
Perform and Interpret: Sickle-Cell Screening						
Practice any other procedure done at your lab (i.e., Flow cytometry & cancer markers, Hgb electrophoresis, sickle cell osmol test, specialized stains, etc. If done, please explain in comments box.)						
Perform and Interpret: Automated PT						
Interpret: Therapeutic/Non-Therapeutic PT Ranges						
Perform and Interpret: Automated APTT						
Interpret: Therapeutic/Non-Therapeutic APPT Ranges						
Perform and Interpret: Automated Fibrinogen						
Perform and Interpret: Automated DDIMER						
Interpret Critical Values: Coagulation						
Perform and Interpret: ACT Testing						
Perform and Interpret: Manual Body Fluid Count						
Perform and Interpret: Automated Body Fluid Count						
Perform: Cytospin						

Perform and Interpret: Body Fluid Differential						
Performs venipuncture collection techniques properly.						
Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
Perform blood collection and draws appropriate tubes for laboratory test requested following the correct order of draw.						
Perform finger/heel stick and pediatric patient collection techniques properly						
Proficient in processing patient samples (blood, urine, fluids, semen, stool, etc.) and distributing said samples to appropriate laboratory department or to reference laboratory according to facility's SOP						
Knowledge of specimen storage requirements and transport according to facility's SOP						
Perform POCT and troubleshoot instrumentation						
Evaluate POCT testing data for abnormalities						
Notifies proper care provider on critical values/specimen errors on POCT performed in facility						
Performs daily, weekly, monthly POCT maintenance and QC procedures in the laboratory. List the analyzer in facility: •						

Professional Evaluation:

Professional Behavior	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
Student is Punctual whenever scheduled.						
Completes all tasks in the work area when scheduled.						
Refrains from action or making statement that represent ethnic, racial or sexual harassment.						
Adheres to the current dress code in the clinical facility.						
Works with other professionals in a positive manner.						
Professional Responsibility	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
Correctly reports all patient results the lab LIS system.						
Recognize all patient critical test values and correctly reports them.						
Resolve any discrepancies in specimen labeling, handling, or collection before reporting results						
Maintains strict patient confidentiality according to HIPPA policies						
Completes all procedures in adherence to laboratory SOPs, take no shortcuts or modifications of procedure.						
Perform and document daily & weekly maintenance procedures, preventative maintenance, temperature checks, etc.						
Observes safety precautions according to Universal precautions and the safety policies of the laboratory and facility						

Would you consider this student for potential employment as an MLS at your facility based on his/her performance?

Y ☐ N ☐

Comments: Comments assist our Program Director evaluate student ability, professionalism, and ethics.

Student Name:
(Please Print) _____

Signature & Date: _____

By signing this document, I am attesting to the fact I have the opportunity to review this evaluation and that it meets the criteria for completion of entry level competencies for MLS.

This signature does not signify that I agree or disagree with the comments or evaluation.

Mentor Name and Credentials
(Please Print) _____
Certification Number _____

Signature/Date: _____

Mentor Name and Credentials
(Please Print) _____
Certification Number _____

Signature/Date: _____

Mentor Name and Credentials
(Please Print) _____
Certification Number _____

Signature/Date: _____

Mentor Name and Credentials
(Please Print) _____
Certification Number _____

Signature/Date: _____

Mentor Name and Credentials
(Please Print) _____
Certification Number _____

Signature/Date: _____

Lab Liaison/Manager Name and Credentials
(Please Print) _____
Certification Number _____

Signature/Date: _____

Liaison: By signing this document, I attest to the ability of the student to competently perform the tasks documented on this form and that said information is accurate.

To be filled (out) if student found Non- Competent in a Clinical Hematology area.

Student has spent 40 hours outside of the work hours and was reassessed.

Mentor Signature: _____ Date: _____

Student Signature: _____ Date: _____

To be filled (out) if student found Non- Competent in a Specific Task.

Student has spent _____ hours (varies for different tasks) outside of the work hours and was reassessed.

Mentor Signature: _____ Date: _____

Student Signature: _____ Date: _____

The completed document must be scanned and uploaded to the MLSC Competency Verification Moodle Site. Submit all pages in vertical format & upright position.

**Louisiana State University-Alexandria
Medical Laboratory Science Program (online)**

**MLT to MLS (online) Clinical Competency Checklist
Clinical Microbiology (8/2023)**

Student Name: _____

Clinical Facility: _____

Student LSUA ID #: _____

Clinical Microbiology Competency Objectives:

The student in clinical practice will:

1. Perform the proper collection and handling of specimens to be processed in the microbiology laboratory.
2. Demonstrate knowledge and understanding of the relationship of bacteria to human diseases.
3. Identify microorganisms considered to normal flora in different types of specimens encountered in the microbiology laboratory.
4. Identify microorganisms considered pathogenic in different types of specimens encountered in the microbiology laboratory.
5. Identify the relationship between microorganisms and disease states in the human body.
6. Identify microorganisms based upon general physiological and morphological characteristics.
7. Perform various biochemical testing and Identify microorganisms based upon cultural and biochemical characteristics.
8. Perform and interpret antibiotic susceptibility of bacteria relevant to treatment of microbial disease processes.
9. Demonstrate knowledge and understanding of the relationship of clinically important fungi, viruses and parasites to human diseases.
10. Perform manual and automated methods of identifying microorganisms.
11. Successfully perform and evaluate cultures on the specimens. Specimens to include but not limited to:
 - a. Tissue
 - b. Throat
 - c. Sputum
 - d. Urine
 - e. Wounds
 - f. Feces
 - g. CSF/body fluids/miscellaneous
 - h. Blood

12. Perform the proper resulting and reporting of laboratory results generated in the microbiology laboratory.
13. If a test or calculation is marked as N/A, the student will be asked to complete an ancillary document to complete and submit along with their Competency Checklist. Lab managers/mentors are encouraged to work with their student to fulfill all items on the Checklist.

*It is the student's responsibility to find a mentor/s for a particular clinical area. Students should work together with their respective mentor/s (work site, former MLT affiliate preceptor, MLT educator or program director} to complete the listed objectives. It is requested that the student laboratory competency evaluation be completed by the **clinical mentor in the presence of student** and allow verbal feedback to the student. It is realized that students might have prior experience with clinical chemistry at different facilities. If the student is already certified by your facility as competent for any individual task listed, they do not need to repeat the laboratory assignment for that particular task.*

Levels of Achievement

COMPETENT	Following the specific test SOP, independently the student performs the procedure applying problem solving skills and interpretation of results with little or no supervision. Student's performance meets the level of competency required by the laboratory, for that task or process, for an entry level MLS.
NON-COMPETENT	Student <u>cannot</u> perform (with confidence) and or has no knowledge of the procedure including theory, basic problem solving and interpretation of results <u>And</u> performance does not meet the level of competency required by the laboratory for that task or process for an entry level MLS.
What if NON-COMPETENT	<p>If a student is found to be non-competent in a <i>clinical microbiology area</i> by a qualified mentor, then the student will spend 80 hours outside of their work hours in that area and (be) reassessed by the qualified mentor.</p> <p>If a student is found non competent in a <i>specific task</i> by a qualified mentor, then the student will spend time (varies with different tasks) outside of their work hours with a qualified mentor and be reassessed until found competent.</p>

To the mentor/preceptor: Evaluate the student's competency based upon meeting the listed criteria below for each task at least 90% of the time the task is performed. The criteria to grade student's competency is as follows:

1. Adheres to established laboratory safety procedures for handling and disposing of specimens and potentially infectious products
2. Performs test and Q.C. with precision and accuracy
3. Interprets tests results accurately
4. Recognizes error and can initiate corrective action
5. Correlates test results to clinical diagnosis

Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
Orientation to the Microbiology Laboratory & Safety Protocol						
Proper use and location of Safety Data Sheets.						
Label specimens in accordance with the facility's policy. Check for labeling compliance on all samples (eg.name discrepancy)						
Correctly identifies the specimen type by the facility's requirements.						
Follows proper specimen collection and storage for routine Microbiology assays.						
Identify physical characteristics of samples that may interfere with testing.						
Perform Manual/Automated Gram Stains with accuracy						
Interpret Manual/Automated Gram Stains with accuracy						
Perform daily, weekly, & monthly maintenance on Microbiology Analyzer in your lab. Please list analyzer(s): <ul style="list-style-type: none"> • • • 						
Properly reconstitute control or reagents using pipettes routinely used in the lab.						
Perform QC procedures in Microbiology lab in accordance with the clinical facility's policy.						

Perform Calibration on instrument and analytes in accordance with the clinical facility's policy.						
Take actions taken when results are not within acceptable limits and correctly documents them.						
Perform set-ups on the following: Sputum, Throat, and Ear Cultures						

Perform set-ups on the following: Cerebral Spinal Fluid Cultures						
Perform set-ups on the following: All other Body Fluid Cultures (not including CSF)						
Perform set-ups on the following: Urine Cultures						
Perform set-ups on the following: Blood Cultures						
Perform set-ups on the following: Wound Cultures						
Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
Perform set-ups on the following: Deep Wound Cultures						
Perform set-ups on the following: Stool Cultures						
Perform set-ups on the following: OCP and Trichrome						
Perform set-ups on the following: Genital Cultures/GC Cultures						
Perform set-ups on the following: Fungal Cultures						
Perform set-ups on the following: Fungal Smears						
Perform set-ups on the following: AFB Cultures						
Perform set-ups on the following: AFB Smears						
Perform and Interpret: Motility Testing						

Perform and Interpret: Gastric Occult Blood Testing						
Perform and Interpret: Fecal Occult Blood Testing						
Perform and Interpret: Rectal Smears						
Perform and Interpret: Culture Sensitivities						
Perform and Interpret: Thick and Thin Parasitology Smears						
Performs and Interprets: Various Kit Testing (please list kits applicable):						

Evaluate cultures to recognize what is normal flora and what is significant.						
Evaluate throat cultures & select next course of action.						
Evaluate urine cultures to decide when susceptibility testing is warranted.						
Evaluate vaginal cultures to recognize what is normal flora and what is significant.						
Evaluate stool cultures to recognize what is normal and what to process further						
Evaluate body fluid cultures for pathogens						
Evaluate wound cultures, recognize what is significant, & select next course of action.						
Evaluate respiratory cultures, including sputum cultures. Recognize normal resp. flora & significant pathogens						
Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A

Select appropriate pathogens to perform antimicrobial testing. Setup and interpret antimicrobial tests i.e., Kirby Bauer, automated systems (Microscan, Vitek), etc. as done at your facility.						
Discuss guidelines for MIC and Breakpoint ranges						
Discuss antimicrobial resistance: VRE, MRSA, and VRSA.						
Recognize and identify Streptococcus species.						
Recognize and identify Staphylococcus species.						
Recognize and identify Neisseria species.						
Recognize and identify Gram positive and Gram-negative organisms in cultures.						
Process Mycobacteria specimens (in accordance to your facility if performed)						

Process specimens for viral procedures (including culture if performed at your facility).						
Perform testing for Giardia antigen, <i>C. difficile</i> toxins, and other stool pathogen testing (as done at your facility)						
Select the proper anaerobic media for plating of specimens for anaerobic culture.						
Discuss proper specimen collection, handling, and transport conditions pertaining to anaerobic bacteria.						
Discuss antimicrobial therapy for anaerobic infections.						
Demonstrate procedure for processing positive blood cultures including subcultures, Gram stains, and proper reporting of results.						

Review molecular testing at your facility if available. (e.g., MALDITOF)						
Professional Behavior						
Student is Punctual whenever scheduled.						
Refrains from action or making statement that represent ethnic, racial or sexual harassment.						
Completes all tasks in the work area when scheduled.						
Adheres to the current dress code in the clinical facility.						
Works with other professionally in a positive manner.						
Task/Procedure Performed	Competent (C), Not Competent (NC)	Comments	Date Completed	Facility Mentor Initials	Competent (Only if reassessed)	N/A
Professional Responsibility						
Correctly reports all patient results the lab LIS system.						
Recognize all patient critical test values and correctly reports them.						
Resolve any discrepancies in specimen labeling, handling, or collection before reporting results						
Maintains strict patient confidentiality						
Completes all procedures in adherence to laboratory SOPs, take no shortcuts or modifications of procedure.						
Perform and document daily & weekly maintenance procedures, preventative maintenance, temperature checks, etc.						
Observes safety precautions according to Universal precautions and the safety policies of the laboratory and facility						

Would you consider this student for potential employment as an MLS at your facility based on his/her performance?

Y ☐ N ☐

Comments: Comments assist our Program Director evaluate student ability, professionalism, and ethics.

Student Name:
(Please Print) _____ Signature & Date: _____

By signing this document, I am attesting to the fact I have the opportunity to review this evaluation and that it meets the criteria for completion of entry level competencies for MLS.
This signature does not signify that I agree or disagree with the comments or evaluation.

Mentor's Name and Credentials
(Please Print) _____
Certification Number _____ Signature/Date: _____

Mentor's Name and Credentials
(Please Print) _____
Certification Number _____ Signature/Date: _____

Mentor's Name and Credentials
(Please Print) _____
Certification Number _____ Signature/Date: _____

Mentor's Name and Credentials
(Please Print) _____
Certification Number _____ Signature/Date: _____

Lab Liaison/Manager Name and Credentials
(Please Print) _____ Signature/Date: _____
Certification Number _____

Liaison: By signing this document, I attest to the ability of the student to competently perform the tasks documented on this form and that said information is accurate.

To be filled (out) if student found Non- Competent in a Clinical Microbiology area.

Student has spent 80 hours outside of the work hours and was reassessed.

Mentor Signature: _____ Date: _____

Student Signature: _____ Date: _____

To be filled (out) if student found Non- Competent in a Specific Task.

Student has spent _____ hours (varies for different tasks) outside of the work hours and was reassessed.

Mentor Signature: _____ Date: _____

Student Signature: _____ Date: _____

The completed document must be scanned and uploaded to the MLSC Competency Verification Moodle Site. Submit all pages in vertical format & upright position.

**Louisiana State University-Alexandria
Medical Laboratory Science Program (online)**

**MLT to MLS (online) Clinical Competency Checklist
Clinical Immunohematology/Serology (Aug 2023)**

Student Name: _____

Clinical Facility: _____

Student LSUA ID #: _P_____

Clinical Immunohematology/Serology Competency Objectives:

The student in clinical practice will:

1. Perform proper skills to safely handle/perform tests on known and unknown specimens
2. Demonstrate proper procedures to collect and evaluate specimens for processing in the immunohematology (blood bank) and serology laboratory.
3. Perform and interpret the Immunohematology quality control (QC), and quality assessment (QA), and calibrations needs.
4. Successfully perform and interpret the following:
 - a. ABO testing (forward and reverse)
 - b. Rh testing including weak D
 - c. antibody screening
 - d. antibody identification
 - e. DAT
 - f. IAT
 - g. donor screen
 - h. gel system testing
 - i. manual tube and gel cross matching techniques
 - j. neonatal testing
5. Differentiate conditions of incompatibility testing based on ABO, Rh and antibody identification results.
6. Perform Thawing and assigning of Fresh Frozen Plasma/Cryoprecipitate.
7. Perform Issuing blood and blood products.
8. Demonstrate and/or perform cord blood workup.
9. Perform required QC/QA activities associated with testing in the serology lab.
10. Perform serology testing procedures. Strep grp A test, RF, RPR, Rubella, Hepatitis, HIV, Mono test.
11. If a test or calculation is marked as N/A, the student will be asked to complete an ancillary document to complete and submit along with their Competency Checklist. Lab managers/mentors are encouraged to work with their student to fulfill all items on the Checklist.

*It is the student's responsibility to find a mentor/s for a particular clinical area. Students should work together with their respective mentor/s (work site, former MLT affiliate preceptor, MLT educator or program director} to complete the listed objectives. It is requested that the student laboratory competency evaluation be completed by the **clinical mentor in the presence of student** and allow verbal feedback to the student. It is realized that students might have prior experience with clinical chemistry at different facilities. If the student is already certified by your facility as competent for any individual task listed, they do not need to repeat the laboratory assignment for that particular task.*

Levels of Achievement

COMPETENT	Following the specific test SOP, the student independently performs the procedure, applying problem solving skills and interpretation of results with little or no supervision. Student's performance meets the level of competency required by the laboratory, for that task or process, for an entry level MLS.
NON-COMPETENT	Student <u>cannot</u> perform (with confidence) and or has no knowledge of the procedure including theory, basic problem solving and interpretation of results <u>and</u> performance does not meet the level of competency required by the laboratory for that task or process for an entry level MLS.
What if NON-COMPETENT	<p>If a student is found to be non-competent in a <i>clinical Immunohematology area</i> by a qualified mentor then the student will spend 80 hours outside of their work hours in that area and (be) reassessed by the qualified mentor.</p> <p>If a student is found non competent in a <i>specific task</i> by a qualified mentor, then the student will spend time (varies with different tasks) in a specific task with a qualified mentor/preceptor and be reassessed until found competent.</p>

To the mentor/preceptor: Evaluate the student's competency based upon meeting the listed criteria below for each task at least 90% of the time the task is performed. The criteria to grade student's competency is as follows:

1. Adheres to established laboratory safety procedures for handling and disposing of specimens and potentially infectious products
2. Performs test and Q.C. with precision and accuracy
3. Interprets tests results accurately
4. Recognizes error and can initiate corrective action
5. Correlates test results to clinical diagnosis

Task/Procedure Performed	Competent (C)	Not Competent (NC)	Comments	Facility Mentor Initials And Date	Competent (Only if reassessed)	N/A
General Blood Bank (Profiled or Individual)						
Orientation to the Blood Bank and Serology Laboratory & Safety Protocol						
Proper use and location of Safety Data Sheets.						
Label specimens in accordance with the facility's policy. Check for labeling compliance on all samples (eg.name discrepancy)						
Correctly identifies the specimen type by the facility's requirements.						
Follows proper specimen collection and storage for routine Blood Bank assays and serology labs.						
Identify physical characteristics of samples that may interfere with testing.						
Demonstrate understanding of when to use and proper use of Pipettes (volumetric/serologic/micropipettes)						
Perform dilutions & calculations on patient samples with accuracy.						
Perform daily, weekly, & monthly maintenance on Blood Bank analyzers in your lab. Please list analyzer(s) •						
Properly reconstitute control or reagents using pipettes routinely used in the lab.						
Perform QC procedures in Blood Bank lab in accordance with the clinical facility's policy.						
Perform Calibration on instrument and analytes in accordance with the clinical facility's policy.						
Organizes blood bank tasks in proper sequence						

Demonstrates a working knowledge of the blood bank SOPs.						
Take actions taken when results are not within acceptable limits and correctly documents them.						

Correctly prepares 2-4% red blood cell suspensions						
Task/Procedure Performed	Competent (C)	Not Competent (NC)	Comments	Facility Mentor Initials And Date	Competent (Only if reassessed)	N/A
Demonstrates proper technique in reading and grading agglutination reactions.						
Perform and Interpret: AB0/Rh Typing and resolves any discrepancies						
Perform and Interpret: Weak D Testing						
Perform and Interpret: Gel Method Antibody Screens						
Perform and Interpret: Tube Method Antibody Screens						
Perform and Interpret: Cold Screen Workups						
Perform and Interpret: DAT Testing						
Perform and Interpret: Type and Screen						
Perform and Interpret: Antibody Identification/Ruling Out						
Perform and Interpret: Antibody Identification/Ruling Out including an enzyme treated panel.						
Perform and Interpret: Rh Phenotyping						
Perform and Interpret: Antigen Typing						
Perform and Interpret: Crossmatch						
Perform and Interpret: Add-On Crossmatch						
Perform: Surgery Set-Up Protocol						
Resolve: Incompatible Crossmatches						
Perform: Emergency Release Protocol						

Perform and Interpret: Transfusion Work-Up						
Perform: Thawing Products (FFP/Cryo)						
Perform: Assigning Products (FFP /Cryo/Platelets)						
Perform: Unit Entry of Products						
Perform and Interpret: Retyping of Donor Units						
Perform and Interpret: Issuing Blood and Blood Products						

Demonstrates knowledge of facility's policies regarding leukoreduction (as available)						
Demonstrates knowledge of facility's policies regarding irradiated units (as available)						
Perform and Interpret: Kleihauer-Betke Stain						
Perform and Interpret: RHIG Antenatal and Post-Partum Indication						
Perform and Interpret: Cord-Blood Workup including DAT, (Elution and antibody ID if done at this facility)						
Perform and Interpret: Type and Screen Neonatal						
Perform and Interpret: Aliquot of Products						
Serology						
Perform QC procedures in Serology in accordance with the clinical facility's policy						
Perform Calibrations in Serology in accordance with the clinical facility's policy						
Perform and Interpret serology testing on Strep grp A test.						

Perform and Interpret serology testing on RF test.						
Perform and Interpret serology testing on RPR test.						
Perform and Interpret serology testing on Rubella test.						
Perform and Interpret serology testing on Mono test.						
Perform and Interpret serology testing on Hepatitis test.						
Perform and Interpret serology testing on						
HIV test.						

Professional Evaluation:

Professional Behavior	Competent (C)	Not Competent (NC)	Comments	Facility Mentor Initials And Date	Competent (Only if reassessed)	N/A
Student is Punctual whenever scheduled.						
Completes all tasks in the work area when scheduled.						
Refrains from action or making statement that represent ethnic, racial or sexual harassment.						
Adheres to the current dress code in the clinical facility.						
Works with other professionals in a positive manner.						
Professional Responsibility	Competent (C)	Not Competent (NC)	Comments	Facility Mentor Initials And Date	Competent (Only if reassessed)	N/A

Correctly reports all patient results the lab LIS system.						
Recognize all patient critical test values and correctly reports them.						
Resolve any discrepancies in specimen labeling, handling, or collection before reporting results						
Maintains strict patient confidentiality according to HIPPA policies						
Completes all procedures in adherence to laboratory SOPs, take no shortcuts or modifications of procedure.						
Perform and document daily & weekly maintenance procedures, preventative maintenance, temperature checks, etc.						
Observes safety precautions according to Universal precautions and the safety policies of the laboratory and facility						

Would you consider this student for potential employment as an MLS at your facility based on his/her performance?

Y ☐ N ☐

Comments: Comments assist our Program Director evaluate student ability, professionalism, and ethics.

Student Name:

(Please Print) _____ Signature & Date: _____

By signing this document, I am attesting to the fact I have the opportunity to review this evaluation and that it meets the criteria for completion of entry level competencies for MLS.

This signature does not signify that I agree or disagree with the comments or evaluation.

Mentor's Name and Credentials

(Please Print) _____

Certification Number _____

Signature/Date: _____

Mentor's Name and Credentials

(Please Print) _____
Certification Number _____

Signature/Date: _____

Mentor's Name and Credentials
(Please Print) _____
Certification Number _____

Signature/Date: _____

Mentor's Name and Credentials
(Please Print) _____
Certification Number _____

Signature/Date: _____

Lab Liaison/Manager Name and Credentials

(Please Print) _____
Certification Number _____

Signature/Date: _____

Liaison: By signing this document, I attest to the ability of the student to competently perform the tasks documented on this form and that said information is accurate.

To be filled (out) if student found Non- Competent in an Immunohematology/Serology area.

Student has spent 80 hours outside of the work hours and was reassessed.

Mentor Signature: _____ Date: _____

Student Signature: _____ Date: _____

To be filled (out) if student found Non- Competent in a Specific Task.

Student has spent _____ hours (varies for different tasks) outside of the work hours and was reassessed.

Mentor Signature: _____ Date: _____

Student Signature: _____ Date: _____

The completed document must be scanned and uploaded to the MLSC Competency Verification Moodle Site. Submit all pages in vertical format & upright position.