

Introduction

The purpose of this handbook is to inform and guide students on program specific requirements and expectations.

The Cuyahoga Community College Board of Trustees, Faculty and Administration reserve the right to change, at any time, without notice, graduation requirements, tuition, books, fees, curriculum, course structure and content, and such other matters within its control, including information set forth in this handbook.

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Section I – Welcome Letter

Welcome to the Medical Laboratory Program at Cuyahoga Community College. This Handbook has been prepared to provide complete and accurate information for students who have been admitted to Cuyahoga Community College's (Tri-C) Medical Laboratory Technology Program offered at the Metropolitan Campus. Students are held responsible for all information contained in this handbook. An acknowledgement form to the effect that the student has received and read the Handbook for Medical Laboratory Technology Students will be signed by the student and kept in the MLT Program office. The form is attached at the end of this document.

Section II – Program Description

1. Mission, Vision and Philosophy

The College Mission:

Mission

To provide high quality, accessible and affordable educational opportunities and services — including university transfer, technical and lifelong learning programs —that promote individual development and improve the overall quality of life in a multicultural community.

Vision

Cuyahoga Community College will be recognized as an exemplary teaching and learning community that fosters service and student success. The College will be a valued resource and leader in academic quality, cultural enrichment, and economic development characterized by continuous improvement, innovation, and community responsiveness.

Values

To successfully fulfill the mission and vision, Cuyahoga Community College is consciously committed to diversity, integrity, academic excellence, and achievement of individual and institutional goals. We are dedicated to building trust, respect, and confidence among our colleagues, students, and the community.

2. Program History

The Associate of Applied Science degree in Medical Laboratory Technology is a two-year program designed to educate/train individuals for an entry-level Medical Laboratory Technicians who demonstrate professional behaviors, and perform a wide variety of diagnostic tests in a clinical laboratory setting with a minimum amount of supervision. Students who successfully complete this program are awarded an Associate of Applied Science (AAS) degree in Medical Laboratory Technology by the College and are eligible to take a certification examination at the technician level such as that given by the American Society for Clinical Pathology (ASCP) and other national certifying agencies. Graduation is not contingent

upon the student passing any type of external certification exam or licensure examination. There is no licensure in the State of Ohio for medical laboratory technicians.

The MLT Program's Mission:

The mission of Tri-C's Medical Laboratory Technology Program is to enable students to become dedicated health care professionals, skilled in the entry-level competencies required of the professional Medical Laboratory Technician.

3. Core Values

To successfully fulfill the mission and vision, Cuyahoga Community College is consciously committed to diversity, integrity, academic excellence, and achievement of individual and institutional goals. We are dedicated to building trust, respect, and confidence among our colleagues, students, and the community.

3354:1-42-01 College Policy on affirmative action, inclusive excellence, equal opportunity, discrimination, and harassment.

<http://www.tri-c.edu/policies-and-procedures/documents/3354-1-42-01-college-policy-on-affirmative-action-inclusive-excellence-equal-opportunity-discrimination-and-harassment.pdf>

Academic Excellence and Commitment to Lifelong Learning

Civility, Respect and Effective Teamwork

Honesty, Integrity, Accountability and Reliability

Responsibility for Patient Care and Confidentiality

4. Description of the Profession

Medical Laboratory Technicians perform routine medical laboratory tests for the diagnosis, treatment, and prevention of disease. The results of the tests that MLTs perform have a direct impact on patient care

<https://www.bls.gov/ooh/healthcare/clinical-laboratory-technologists-and-technicians.htm>

5. Program Admission

The Associate Degree Medical Laboratory Technology Program is four academic semesters plus a qualifying pre-program semester. Students apply to the program and are formally admitted in the fall semester preceding the spring semester entry, to begin technical MLT lecture/laboratory courses. The MLT courses feature didactic and laboratory coursework that are offered online and hybrid format (Laboratory face-to-face daytime only). In addition, students may concurrently complete other courses toward the academic requirements for the Associate Degree at any time while in the program.

The program can only be taken in the specified semester sequence order for MLT-prefixed program courses. Students must progress through the program in step with the specified order. Please make a note that the BIO 2500 Microbiology course MUST be taken prior to the MLT 2482 Clinical Microbiology, since it is the prerequisite. Courses without the MLT prefix may be taken any time with this exception. The final semester of the program requires attendance during first shift for directed practice. The start time for first shift can vary from 4:30am-9:00am depending on the facility.

Phase One

The pre-admission phase consists of successful completion or transfer (Grade of C or better) from accredited college/university, of five courses: English 1010, Chemistry 1020 **or** Chemistry 1300, Mathematics 1410, MA 1020, and MLT 1000 Intro to MLT (offered each fall semester). These courses are part of the program sequence and are required for completion of the Associate Degree requirement.

Upon conditional admission to the MLT Program, each student must attend a mandatory orientation session held by the MLT program director

Phase Two

Includes the technical courses during the first three semesters and may also include general college courses needed to meet degree requirements. This portion includes lecture and laboratory courses in urinalysis/body fluids, hematology/coagulation, problem solving/quality control, clinical chemistry, clinical microbiology, immunohematology and serology, advanced skills hands-on simulated clinical laboratory, and education concepts. These courses are designed to introduce the student to basic theory, test procedures, techniques, quality control, and terminology associated with these laboratory departments, enabling the student to enter and perform at the clinical site. Students will practice procedures under supervision at the college lab. Students must adhere to the curriculum sequence as outlined for technical MLT courses to progress through the succeeding courses. Incomplete grades for MLT courses are only given for pre-approved situations. The MLT student must complete courses with a "C" grade or better in EACH lecture section and EACH laboratory section to continue through the program.

Phase Three – MLT Directed Practice

The final semester of the program includes the clinical directed practice - 400 clinical hours (approximately), hands-on, daytime clinical directed practice at an area hospital/clinical site to complete skill training in all lab disciplines (The MLT Program cannot guarantee the immediate availability of clinical sites). Start times may be as early as 4:30 am for some labs. The exact times of starting and ending each shift may vary and may change depending on the clinical site the specific section of the laboratory.

Teach-Out plan

Since the College is a Higher Learning Commission (HLC) accredited institution, Tri-C follows the guidelines described in HLC policy (https://download.hlcommission.org/Teach-OutRequirements_PRC.pdf). Per NAACLS' guidelines, teach out plan will be developed and submitted to NAACLS within 30 days of the official announcement of the temporary suspension or closure of the program. The College will attempt all reasonable options to help students complete their program and obtain their degrees in timely manner.

The following outline is an example of a "Teach Out" plan:

Schedule a meeting with the Associate Dean of Metro Sciences and Health Careers (MSHC) to discuss and implement the plan.

Keep all academic counselors informed and up-to-date and offer alternative career counseling.

Inform students and the community that no additional students will be accepted into the program.

Update the program website and college catalog.

Identify all students in the pipeline and or on the wait list.

Determine a reasonable timeline for student completion.

Notify all students of the impending closing and the deadline to begin the program specific classes.

Continue to offer the courses required for graduation to enrolled program students until those students have completed their degrees in a reasonable manner and /or make suitable options including transfer to comparable programs available to students who have not completed the program, including the MLT-2940 Directed Practice.

Field Experience Shortage:

In the event that insufficient clinical sites slots are available for a student to perform their field experience, the selection of those entering a practicum site will be determined by the admission date into the program and when admission criteria are met, then by GPA.

Remaining students will be placed in the next available clinical site rotation.

The College will make all reasonable efforts to allow students currently enrolled in the program to continue all required course and to get their degrees upon successful completion of all required program courses.

STUDENT SCREENING, BACKGROUND CHECK INVESTIGATION (BCI)

All students applying to the program must submit to, pay for and pass a background check investigation (BCI), including fingerprinting, provided by the company contracted by the College only ([American DataBank- Complio](#)). Other companies are not accepted. Documentation of completion must be on file prior to final acceptance into the directed practice. Continuation in the program is not assured if an unacceptable result is obtained by the College. Acceptance into a CCC Healthcare program with a BCI record does not guarantee a clinical site placement, acceptance by the profession's certification/licensure/registration board, or employment upon graduation. Students must disclose any new offenses to their respective health career program manager that have occurred during their course of studies or while on a break or leave from their course of studies. Failure to report a new offense may result in dismissal from the program. The student must report the commission of any felony to the program manager immediately upon conviction in writing. The student understands these risks.

Please note that due to the convictions and/or other information found in your criminal record report, you are limited as to which facilities you will be able to use for your mandatory clinical/field experience rotations. In the event that you are unable to secure placement in a facility for one or more of your clinical/field experience rotations, your progress through the program may be delayed and/or may not be able to be completed. The College cannot guarantee you placement at a facility that may be required for completion of the program, based upon the results of your criminal records check. Further, you are financially responsible for all costs incurred as a student and that admittance to a limited-entry and/or completion of a program in no way guarantees that you will receive licensure, be permitted to practice and/or obtain future employment.

Note: Exposure to Blood Borne Pathogens/Hazardous Chemicals

During all phases of the program including the directed practice, students will be exposed /working with human body fluids/associated components, including but not limited to blood, urine, feces, body fluids, products and reagents made from human body fluids, and live microbial cultures. Said materials may contain bio-hazardous components such as HIV, various strains of the Hepatitis virus and others. All patients must be considered as potentially infected with HIV and/or any other bloodborne pathogens. Students who collect, handle and/or examine blood, urine, semen, and vaginal secretions or other body fluids, cultures, or tissues must treat all such specimens as if pathogenic, and use personal protective equipment and engineering controls to protect themselves and others. Students may also be working with chemicals which pose certain risks and are instructed on safe use and how to reference the Safety Data Sheets for chemicals. Students assume these risks and will be instructed in proper training in the safe use and exposure prevention for these pathogens/chemicals.

Body Fluid Exposure

Although students are taught correct specimen handling techniques and practices, an accidental exposure may occur during the clinical experience.

The following are examples of exposures, but are not limited to:

1. Needle sticks.
2. Lacerations from other sharp items contaminated with any body fluid.
3. Mucous membrane splashes with any body fluid.
4. Human bites.
5. Blood or body fluid contamination of any area of broken or open skin (chapped or scratched areas or lesions from insect bites).

Reporting the Incident

All Tri-C students who are exposed to a body fluid must adhere to the following procedures, after procuring the proper assistance to disinfect themselves:

1. On Campus: The student must contact the MLT program manager (or faculty) and submit the College's Accident/Incident Report (Attached) to the program manager immediately that day. See the following form.
2. At the clinical site: Immediately report the incident to the faculty or clinical supervisor at the clinical site and seek medical attention if necessary. Immediately flush and wash the affected area; disinfect. The section supervisor and the student must report the incident to the appropriate departments at the clinical site including infection control. A site incident report **and** a Tri-C College Accident/Incident Report (attached in Handbook) must be completed by the student and signed by the student and clinical supervisor. Turn both in to program manager immediately that day.

NOTE: The College liability insurance will not cover any expenses incurred by the student as a result of the student's exposure. Any hospital service provided to the student must be covered by the student's health insurance or the student him/herself. The expense cannot and will not be covered as an industrial (Workmen's Compensation) claim, as the student is not considered an employee.

General Safety Guidelines

The student will be instructed in lab safety protocol in the prerequisite course MLT 1000 and course specifics by all instructors:

- Emergencies/disasters must be reported to Public Safety by phoning extension 4325. SPECIAL NOTE: In medical emergencies dial extension 4911 when using campus phones
- Students will be required to wear a face-shields when working with biohazardous samples or caustic/acidic chemicals. Splash shields for countertops are also available
- Students should know the location of all exits, safety shower, eye wash stations/sinks, disinfectants, fire extinguishers, Safety Data Sheets, locate the evacuation route, and evacuate at the sound of any alarms at once.
- Only fully covered footwear of impermeable material are allowed (NO clogs, slides, Crocs etc).
- No application of cosmetics or contact lenses.
- No use of personal electronic devices in laboratories such as cell phones
- Open sores must be covered, long hair tied back, no dangling jewelry of any kind, no long nails.
- No food or drink in any lab classroom or stockroom
- No students in the stockrooms. No students in lab classrooms unless instructor is present.
- All biohazard materials and chemicals must be segregated and disposed of according to applicable regulations, in the red bagged or colored biohazard containers.
- All materials left in labs and stockrooms must be labeled to identify contents, and hazards if applicable.
- Use of appropriate, approved personal protective equipment is required (lab coats and gloves).
- Disinfect all countertops after lab with 10% bleach solution, made fresh daily.
- Notify instructor or lab technician immediately if a chemical spill occurs; evacuate the area.

Latex Allergy

Students with allergies/sensitivities to latex/latex-based products must identify themselves prior to entry into the lab setting, to the program manager, faculty and clinical site personnel. Students should be aware that they may be exposed to these products in their course of studies on campus and at the clinical site. The student must receive written medical clearance from a physician to enter the program and submit to program manager prior to the program start date.

6. Professional Memberships

Individuals are eligible to be a Laboratory Student Member if they are enrolled in a regionally accredited college/university science program or a medical laboratory science program approved by an appropriate accrediting agency.

<https://www.ascp.org/content/membership/become-a-member>

Graduates may be eligible to take national certification examinations like that offered by the American Society for Clinical Pathology (ASCP)

*Organizations recommended for students or graduates Medical Technology students and graduates can join the following professional associations

[American Society for Clinical Pathology \(ASCP\)](#)

[The American Society for Clinical Laboratory Science \(ASCLS\)](#)

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Section III – Program Expectations

1. Professional Standards

Medical Laboratory Technologists are expected to meet the Professional Standards of the profession.

2. Code of Ethics

A student enrolled in the Medical Technology Program (MLT) is in the beginning phases of a career as a Medical laboratory Technician and should be aware of and adhere to the professional and ethical code of the Medical Laboratory Technology field. In addition to the Student Code of Conduct, students within the MLT Program are also expected to follow the applicable code of ethics outlined by The American Society for Clinical Laboratory Science (ASCLS) [Code of Ethics/Conduct](#).

3. Program Learning Outcomes

<https://catalog.tri-c.edu/programs/medical-laboratory-technology-aas/#programlearningoutcomestext>

Tri-C's MLT Program will:

1. Provide a competency-based curriculum in medical laboratory technology which will enable the student to function effectively in the clinical laboratory setting and will lead to successful employment as an MLT upon graduation from the program.

2. Inform students of the ethical and legal standards of medical practice to foster the development of proper behaviors under routine and emergency situations and to promote professional characteristics.
3. Develop student attitudes conducive to a humanistic and empathetic patient relationship to meet the various physical and emotional needs of patients.
4. Provide an educational background and atmosphere that will foster the desire for continual learning in a chosen profession in order to ensure growth and adaptation to technological and societal change.

MLT Program Objectives: Cognitive and Technical

Upon successful completion of Tri-C's MLT Program, the student will be able to:

1. Collect and process biological specimens for analysis.
2. Perform analytical tests on body fluids, cells and products meeting the required standards in accuracy, neatness, and thoroughness without close supervision or assistance.
3. Recognize factors that affect procedures and results, and take appropriate actions within predetermined limits when corrections are indicated.
4. Report results that are congruent with true values and results obtained.
5. Monitor quality control within predetermined limits.
6. Perform preventive and corrective maintenance of equipment and instruments or refer to the appropriate source for repair and document according to quality assurance protocol.
7. Relate laboratory findings to common disease processes.

MLT Program Objectives: Behavioral

Upon successful completion of Tri-C's MLT Program, the MLT will be able to:

1. Recognize and act upon individual needs for continuing education as a function of growth and maintenance of professional competence.
2. Demonstrate professional conduct and interpersonal communication skills with patients, laboratory personnel, other health care professionals and with the public in general.
3. Recognize the responsibilities of other laboratory and health care personnel and interact with them with respect for their roles in patient care.
4. Maintain an orderly work area.
5. Maintain satisfactory attendance including punctuality in both college courses and at the clinical site
6. Maintain patient confidentiality in accordance with all rules and regulations of the Health Insurance Portability and Accountability Act (HIPAA)
7. Observe safety precautions with reference to biological hazards, patient specimens, chemical reagents and flammable materials in accordance with all Occupational Safety and Health Administration (OSHA) federal regulations.
8. Accepts the duties and responsibilities of a student as defined in the Tri-C student handbook, the MLT Program Handbook.
9. Abides by the existing and future rules and regulation of the clinical affiliate.

MLT Program Competencies/Outcomes

1. Organize workflow using technology to produce efficient, detail oriented work and identify priorities and use problem solving skills to resolve these issues.

2. Follow governmental, accreditation, and institutional guidelines in relationship to safety, infection control, confidentiality, and proficiency testing.
3. Practice consistent quality assurance through precise performance, monitoring, analyzing, and documenting of all pre, post and analytical phases of quality testing.
4. Collect samples; perform testing procedures according to standard operating procedures; operate, maintain, and troubleshoot instrumentation; and keep accurate records.
5. Interact with patients, staff and colleagues, using tact, courtesy, and respect.
6. Exhibit professionalism by adhering to institutional policies and practicing ethical standards as defined by accrediting boards.
7. Practicing ethical standards as defined by accrediting boards.

MLT Program Individual Course and Directed Practice Objectives

These objectives will be distributed by each instructor in the course syllabus. Specific learning outcomes are stated, and students are advised to concentrate on the material specified in the objectives.

<http://catalog.tri-c.edu/>

4. Professional Attire Requirements

Dress Code/Personal Grooming (includes clinical sites)

Conservative dress is suggested for all MLT lab sessions, clinical, and non-clinical classes so that you represent the profession and the college well. The primary concern is that all students are clean and neat and professional. While at Tri-C's MLT laboratory and or the clinical site, students are to wear the required clean uniform/attire. The student should adhere to the dress code of the clinical site and in addition, when in uniform:

1. Long hair must be pulled back from the face in a neat and controlled manner. Hair that is below shoulder length must be worn pinned back or up. No scarves, bows, or yarn are to be used to secure hair. If barrettes are used, use natural colors only.
2. Fingernails must be short, clean and well-manicured. Nail polish, if used, must be tasteful. Nails are too long if you can see the nails above the fingertips when the fingers are at eye level. Artificial nails or any type are not allowed.
3. Cosmetic use should be limited to a natural look and appropriate for daytime.
4. Perfumes and colognes are not permitted (some patients, instructors and or colleagues may have allergies or reactions to certain scents).
5. The only jewelry permitted during practicum is small pierced earrings on the ear lobes (drop earrings or identifiable shapes like stars, moons, or hoops are not permitted), a small watch or a wedding band. No bracelets, necklaces, or costume jewelry rings are worn, with or without gloves. This is a safety and hygiene issue.
6. Body piercings and tattoos should be covered and not to be visible.
7. Unacceptable apparel includes Low-cut tops, hip-hugger/sagging pants, see-through materials, visible underwear or tank tops are prohibited.
8. The facility may provide disposable lab coats to wear in the lab. If not, you must provide one. Lab coats worn in the lab should not be worn elsewhere in the hospital.
9. Unless provided with scrubs, male students must wear a white or pastel shirt (a tie is not required) and clean slacks and a laboratory coat.
10. Shoes must be clean and polished at all times with clean laces. No shoes with open toes/heels may be worn. No clogs. It is recommended that you wear comfortable leather shoes to protect

your feet against accidental spills. Cloth sneakers and tennis shoes are not acceptable. Boots are never permitted during practicum.

11. Uniform pockets should be limited to storing pens and pencils only.
12. Name tags, if provided by the clinical site, should always be worn during practicum. Tags must be returned to facility at the end of the clinical experience.
13. Absolutely no gum or food is permitted in any class or during practicum.
14. Maintain a neat, clean appearance at all times as this is one criterion of being professional.
15. Dress in all clinical sections will be supervised by the faculty /trainers. Students may be dismissed from a class or practicum if the dress code is violated.

5. Student Code of Conduct

The College acknowledges the importance of an environment that is conducive to learning. The Student Conduct Code and Judicial System serves to provide such an atmosphere that is conducive to education growth and civility which fosters and protects the mission of the College. College Procedures on Student Conduct: [Student Conduct Code and Student Judicial System](#) , and [Student Judicial System](#).

Tri-C has adopted a statement of standards for student behavior in and out of classes. These standards of conduct are to be maintained while in the classroom, clinical site, college related functions and/or while fulfilling any and all program requirements. A Student Conduct Code has been instituted to promote professional integrity in the student body. For the professional individual, a high sense of integrity and honor has always been expected. It becomes one's duty to develop these qualities and maintain them throughout their professional life. The scope of the code extends through all phases of professional training including examinations, quizzes, projects and directed practice experiences. Following the Student Conduct Code and The Judicial System are essential to prevent possible involvement of innocent students and to produce conduct that is above reproach. The MLT Program follows the Student Conduct Guideline and Student Judicial Code, and Student Complaints, which should be viewed at <http://www.tri-c.edu/student-resources/student-handbook.html>. The student is required to access these sites, read and understand all policies within. The student may be tested on this material for a grade in their first program course.

Our primary concern is the health and safety of patients, instructors, staff, students and visitors. Besides maintaining passing grades, a student must demonstrate a positive, cooperative attitude with instructors, classmates, hospital personnel, and patients to function competently as a medical laboratory technician. Clinical sites have the right to request that a student be removed from a clinical site if the student is deemed to have unprofessional comportment that is disruptive to the laboratory and/or harmful to the care of patients. Documented student misconduct that will result in immediate withdrawal from the clinical facility includes, but is not limited to:

1. Failure to maintain the required minimum level of competency, or failure of any discipline.
2. Violation of the attendance policy including, absenteeism, left early, tardiness, violation of the terms of leave of absence (LOA), or student performance contracts.
3. Uncooperative, hostile, or negative or non-constructive attitude towards patients, clinical instructors, hospital staff, visitors, or fellow students.
4. Use of abusive, obscene, inappropriate or threatening language with instructors, hospital staff, patients, visitors, or fellow students or though not directed toward anyone.

5. Cheating on written or practical examinations.
6. Inconsiderate, discourteous, or disrespectful treatment of instructors, hospital staff, patients, visitors, or fellow students or in general.
7. Engaging in unethical or unsafe behavior at a clinical site, in the classroom, laboratory, or any other program related activities.
8. Entering the hospital or college under the influence of alcohol or drugs/over the counter meds.
9. Drinking alcoholic beverages on clinical site or college property and events.
10. Illegally obtaining, possessing, selling, or using narcotics, amphetamines, hallucinogenic or other substance of abuse.
11. Failure to maintain strict confidentiality, as prescribed in the HIPAA/facility policies.
12. Failure to notify, in a timely manner, both the hospital and the college MLT office if you cannot report to your assigned clinical site (i.e., you are absent).
13. Accepting gratuities from patients.
14. Failing to report transcription errors/inaccurate information on any hospital form or record.
15. Unsatisfactory technical performance.
16. Dishonesty in the form of falsifying test results/QC, cheating on examinations, knowingly reporting inaccurate test results, avoiding responsibility for errors, evidence of lying.
17. Submitting work (papers) of others as your own; plagiarism.
18. Failure to collect specimens and/or perform test procedures as directed.
19. Inability to communicate verbally or in writing, or failure to process aural dialogue in business English negatively impacting operations or patient care.
20. Violation of College or Program procedures/policies.

If documented misconduct occurs, reassignment to another clinical site and/or continuation in the program is not guaranteed. Each case will be reviewed on an individual basis by MLT faculty and the program manager. Dismissal from the program may occur.

Confidential Information

A student must abide by the principals of confidentiality. According to the Federal Health Insurance Portability and Accountability Act (HIPAA), all information contained in a patient's health record is considered confidential. In addition, information pertaining to physician and/or hospital business is considered confidential as a matter of professional ethics. Information obtained during directed practice which pertains to patients, physicians, or hospital business is considered CONFIDENTIAL. Similarly, all such information discussed or made available on campus in class or laboratory sessions is CONFIDENTIAL. Confidential information must not be disclosed to unauthorized individuals, and this includes family and friends. If the student commits a breach of confidentiality, this is cause for immediate dismissal from the program.

Communication

Everyday Communication/Change of Name/Address/Phone Number

It is mandatory that the MLT office be informed in writing of name/address, phone number change, or email account changes. The primary means of communication between students, faculty and the program manager will be through Tri-C.edu email, especially for large documents like the handbook. When available, the student's personal email will also be used (secondary) unless noted differently. Students are to check email on a daily basis. Any change in student information should be given to the MLT office. The

MLT office assumes no responsibility for the student's failure to receive information that is sent by U.S. Mail or failed attempts to reach the student by phone or via an inaccurate email address. The Office of Admission and Records must also be notified of any change in name, address, or phone number. Failure to notify the school of these changes may result in serious records problems for the student.

6. Health and Physical Requirements

The College establishes health requirements, standards, and/or physical requirements that meet the expectations of employers, field experience locations and/or clinical sites.

In order to meet the MLT program competencies/objectives/outcomes, a student must possess the following characteristics:

Speaking/Writing: Possess oral and written competency in the English language necessary to both understand and communicate with instructors, other health care workers, and patients.

Hearing: Must be able to hear verbal orders and sounds that indicate changing patient status i.e. breath sounds, blood pressure, pulse. Must be able to hear alarms on instruments and timers

Mental Ability: Must be able to learn new procedures and understand directions. Must be able to understand and interpret orders accurately and must be able to accurately perform laboratory duties in a stressful environment.

Analyze: Must be able to interpret data used in formulating accurate patient assessments, evaluations, and self-evaluation. Make decisions to sufficiently deliver patient care. Must be able to interpret laboratory results and correlate with clinical significance and interpret quality assurance.

Visual: Must be able to observe changes in patient status and unsafe environmental conditions. Have visual acuity sufficient to use microscopes to perform analyses requiring distinguishing structural details and staining characteristics of cells and microorganisms, and have the ability to distinguish colors on procedural test strips and color charts.

Reading: Must be able to read and comprehend written course materials and documentation of patient care and office policies and procedures in the English language.

Calculating: Must be able to utilize laboratory mathematics in calculations of formulas and reagent preparation.

Smelling: Must be able to detect odors indicating unsafe conditions.

Dexterity: Must be able to capably perform medical lab procedures and phlebotomy. The student must have the ability to freely maneuver around the assigned laboratory areas and patient care settings. This

includes, but it is not limited to standing, walking, bending, lifting, reaching, hand-eye coordination, and to safely/efficiently perform phlebotomy, handle specimens or reagents, and perform analytical procedures requiring the use of small, delicate tools, equipment, and instruments.

Objectionable Specimens/Patients: The student must be willing/able to work with all body fluids (e.g. blood and urine), and all patient types, with no bias.

Compliance with health requirements will include any required immunizations per current CDC and Ohio Department of Health guidelines. Please note, each clinical site may have additional or varying immunization requirements, including immunizations related to COVID-19 or other novel viruses.

<https://www.tri-c.edu/programs/health-careers/documents/hcn-immunization-and-req-completion-guide.pdf>

Computer Technology and Proficiency

All MLT courses have distance learning/web-based formats on the course management system Desire to Learn “D2L” <https://www.d2l.com/support/>, <https://www.tri-c.edu/online-learning/technology-resources/brightspace/brightspace-students/index.html>. It is expected that the student will log into the “classroom” at least 3 times a week. If the student does not have a home personal computer, the MLT distance learning-based courses can be accessed through Tri-C’s Technology Learning Centers (TLC) at each campus or from any library or any other computer that has internet capabilities. Computer literacy is needed to be successful in these courses.

The basic requirements you must meet are:

1. You must have basic computer skills. You should be comfortable using a word processing program, browsing for files, copying and pasting between programs.
2. You must have access to a computer that connects to the Internet. The course materials are accessible through D2L. Your student ID number and password are required for access. If you do not own a computer OR if your computer malfunctions during the semester, you will be expected to use the Tri-C Technology Learning Centers (TLC) at each campus or go to a public library.
3. Computer hardware and software specifications for D2L can be found at: <https://www.tri-c.edu/online-learning/technology-resources/brightspace/brightspace-students/index.html>.
4. Complete the Browser Check on the Distance Learning Website.

Supplemental Course Websites: Each MLT course should have a supplemental D2L website, which will host all the printed material for the course. Check with the instructor as to how communications for the course will occur, whether via the course site or personal email and the frequency of postings.

Technology Problems are not an excuse for missed or late work. If you experience a technical problem, you should call the 24/7 Helpdesk at (216) 987-HELP to receive technical support. There are computers for student use at each campus’ Technology Learning Center (TLC). These resources should be used to keep up with your coursework while you work to resolve a computer problem.

For more information on health requirements for health programs, this link provides a guide and resources: [Health Careers and Nursing Immunization and Health Requirements](#).

Section IV – Academic Requirements and Progression

1. Degree Requirements

<https://catalog.tri-c.edu/programs/medical-laboratory-technology-aas/#text>

[Suggested Semester Sequence](#)

[MLT Course Descriptions](#)

2. Attendance

Students are expected to adhere to established College, program and course attendance guidelines:

[Student Rights and Responsibilities - Attendance](#)

Students are required to attend every class meeting of each course for which he/she is registered, including clinical sites. Regular class attendance is expected. Cuyahoga Community College is required by law to verify the enrollment of students who participate in Federal Title IV student aid programs and/or who receive educational benefits through other funding sources. The College is responsible for identifying students who have not attended class or logged into a class for which they are registered. Never Attended is reported each semester by each instructor and will result in a student being administratively withdrawn from the class section using a Never Attended review within the second week of the term. Instructors can report, after the first two weeks of a semester, whether any of their registered students have “Never Attended” a class so that any student who has failed to attend up to that point will be removed from class. After this two-week period a student that attended and now is not attending class is responsible for withdrawing from class by submitting his/her own withdrawal form or will be at risk of receiving a failing grade.

Students who are unable to continue their classroom attendance should initiate a withdrawal prior to the deadline published by the College. If illness or emergency should necessitate a brief absence from class, students should confer with instructors (after notifying the program manager) upon their return. Students having problems with class work because of a prolonged absence should confer with the program manager or a counselor.

Scheduled days off: Students are not permitted to attend clinical sites on days that the college is officially closed as in the case of scheduled holidays. Students are not allowed to deviate or modify their clinical schedule on their own. Such request must be sent to the program director/for consideration.

Emergency Closings: On days when the College closes or cancels classes due to an emergency, catastrophic event or severe weather, students are to use discretion in determining attendance at the clinical site. Those choosing to not attend are expected to notify their clinical site instructor and Tri-C program manager of their absence and are required to make up any lost time.

The student is to email ayman.idrees@tri-c.edu and course instructor/s no later than 8:30 am, every time an absence or tardiness occurs. The student should state reason for absence or tardiness and expected

return time. Failure to do so will result in disciplinary action. NOTE: If the student is scheduled at the clinical site, the student must contact the program manager as above, and in addition, notify the clinical site as well. They are expecting you and have staffed their departments for your presence-please be courteous. Absence from the clinical site must result in the time being made up at the convenience of the clinical site at their option.

Students need to make appropriate accommodations for transportation, traffic, weather, childcare etc. to maintain compliance. Students are expected to monitor the traffic in sufficient time, prior to embarking on their travels by checking TV, WTAM AM1100 radio, which has traffic every 10 minutes. Students should plan at least one alternate travel route to the college/clinical site in case of bad traffic/weather. School closings are broadcast on all local TV stations, and the Tri-C emergency notification system may notify you as well regarding emergency closing of the campuses/college.

Tardiness/Left Early

Note: Tardiness/leaving early becomes an “unexcused absence” if the student is over 10 minutes late or leaves early 10 minutes or more. All absences, tardy and left early incidences are documented.

Students are expected to be on time for every class, both on campus and at the clinical site. Arriving late/leaving early is very disruptive to the class and other students. Excessive infractions will result in dismissal from the program due to inability to keep on the correct sequence. Student may be dismissed from the clinical practice as well, as make up time is not guaranteed. The Disciplinary Action Steps below are followed. Students are responsible for obtaining missed material/announcements from fellow classmates.

Enforcement

To prevent abuse of the attendance policy, in particular at the clinical site, unannounced phone checks, or visits may be performed by the faculty/program manager to assure students are present. Students are expected to be at the clinical site at the hours listed on the site’s schedule form or receive permission from the program manager for any variance. The faculty and program manager exchange attendance information as well.

Disciplinary Action Steps for Unexcused/Unreported Absences/Tardy/Left Early

First unexcused absence: verbal warning

Second unexcused absence: written warning

Third unexcused absence: student is recommended to withdraw from the course/program unless sufficient remediation can occur and is written into an educational success plan contract which is signed by the student and program manager.

Missed Work/Make Up/ Withdrawal

Consult class syllabus for course assignments and policies of the instructor. Students who miss an announced homework assignment or test may be permitted to make up the work at the discretion of the instructor, on their own time. Arrangements to make up work must be made upon the student’s return to the next class. Do not expect the instructor to contact you. Unawareness of an assignment or examination does not constitute a valid excuse for missing it. Absent or tardy students are held responsible for obtaining all handouts, assignments and announcements that are presented during an

absence from the fellow students -or- from the instructor, by appointment. Entrance to the classroom may be denied for late students, especially if a test is in progress.

“Vacations” are not permitted outside of official College holidays.

Any other extenuating circumstances and or requests for accommodations must be evaluated by the program manager who will judge each case on an individual basis and inform the instructor and student of the decision.

Please refer to MLT syllabi for attendance guidelines

3. Absence Policy

The decision to excuse an absence is on a case specific basis and is made by the program manager. Documentation of proof for absence will be required. There is NO makeup for missed laboratory sessions. Therefore, it is essential to strive to make it to class. Absence from the clinical site must result in the time being made up at the convenience of the clinical site at their option.

4. Illness

If illness or emergency should necessitate a brief absence from class, students should confer with instructors immediately upon their return. Students having problems with class work because of a prolonged absence should confer with the instructor and program manager, or a counselor. A student's failure to attend classes shall not constitute an official withdrawal.

Students should report an infectious disease, transmissible from person to person or by direct contact with an affected individual or the individual's discharges, or by indirect means. The Ohio Administrative Code (OAC) provides guidance through the Communicable Disease Rules:

https://odh.ohio.gov/wps/wcm/connect/gov/84ffce4-16f1-4602-9b93-7ce4eeb34680/section-1-reporting.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_M1HGGIK0N0JO00QO9DDDDM3000-84ffce4-16f1-4602-9b93-7ce4eeb34680-mtn9-.6.

The Ohio Administrative Code (OAC) provides guidance through the Communicable Disease Rule.

Diseases to report: <http://codes.ohio.gov/oac/3701-3-02v1>.

For a student who is infected with one of these illnesses and, if the illness occurs on campus, please use the Cuyahoga Community College Student Incident Report Form on Appendix II as well as immediately reporting the illness to the Program Director or Manager.

5. Scheduling

All MLT courses require advance departmental approval prior to registering. Contact the MLT Program Director at ayman.idrees@tri-c.edu for details. The program can only be taken in the specified semester sequence order for MLT-prefixed program courses. [Suggested Semester Sequence](#).

Section V – Academic Status

The College procedure on Academic Status explains the college's academic probation and dismissal process, including the GPA requirements for each level of credit hours attempted. Good Academic Standing, Dean's List status, probation and dismissal are explained by opening the underlined links: [College Procedure on Academic Status](#). The Standards of Academic Progress information provides details on how financial aid is impacted based on grade point average and progress toward degree completion: [Satisfactory Academic Progress](#). Federal regulations require that students make measurable progress towards completion of their course of study in order to continue to remain eligible for federal aid. The College reviews the academic progress of all students and notifies students receiving federal financial aid each semester of their status.

1. Grading

The link to the [Procedure on Grading](#) explains the grades and awarding of credits, auditing of courses and pass/no pass use. At the program level, there are grading scales and/or rubrics that faculty provide to guide students on course grading.

Grading Policy and Retention Criteria of the MLT Program

The Medical Laboratory Technology Program is fast paced, interesting, challenging and scientifically oriented. It is mentally, academically, and physically demanding. Successful completion of this program requires dedication, commitment, and adjustments in social and personal activities. Length of study time is considerable and may exceed the 2 hours outside of class to 1 semester credit hour.

To progress through the program, students must earn a minimum of a "C" grade in both lecture and laboratory portions of all courses in the MLT program and achieve a satisfactory professional behavior score. Students must also earn a passing score in each clinical field experience course. Students must also keep an overall GPA of 2.5. Students who are unable to meet these requirements will not progress through the curriculum or be placed at a clinical site for clinical education. Dismissal from the program may ensue. Incomplete "I" grades are not acceptable.

The following grade scale applies to the Medical Laboratory Technology courses: A=93-100%, B=83-92%, C=73-82%, D=65-72%, 64.49% and below is an F.

2. Grade Point Average (GPA)

A minimum of 2.5 GPA is required for the admission to the MLT Program. MLT student must complete courses with a "C" grade or better in EACH lecture section and EACH laboratory section to continue through the program.

3. Program Withdrawal, Probation, Dismissal, and Reinstatement

When considering withdrawing from a course, students should be mindful of the Course Withdrawal Dates. Depending on the date of withdrawal a student may forfeit refund and/or risk the possibility of

receiving a failing grade. If a student encounters any extenuating issues that prevent the completion of a course or program, the student will need to follow withdrawal instructions from the program administrators. Students are advised to contact the MLT program director to discuss options prior to withdrawing from any course/s.

If a student receives two separate unsatisfactory grades in any MLT course, he/she will not be allowed to continue in the MLT Program, and will be asked to meet with the MLT program director or an academic advisor to explore alternative career options

A student must achieve a minimum overall grade point average of 2.00 in all program courses to be eligible to graduate

Academic Credit

In order to award one (1) semester hour of college credit, the Ohio Department of Higher Education requires two hours of significant student study outside of class for each one hour in class for the equivalent of an academic semester (16 weeks). For example, a 3-credit hour class with 2 lecture hours and 3 lab hours has a course load requirement of 5 hours in class each week, and an average of 10 hours each week outside of class to earn 3 semester hours of college credit. Course requirements have been designed to comply with the requirements of the Ohio Department of Higher Education. Make sure you can give these courses the requisite hours per week by prioritizing your time accordingly. Proper planning, prioritization and dedication will enhance your success in this course.

PASS/NO PASS OPTION

An alternative to a letter grade [A, B, C, D, and F] is called Pass/No Pass Grade Option. A word of caution to be shared with students:

The MLT program requires traditional letter grades (A, B, C, D) for the core non-field experience course requirements, therefore PASS/NO PASS may **not** be an option.

Once you have registered for a course and select the Pass/No Pass Grade Option you cannot convert back to a traditional grade option for that particular course after the 100% refund period. If you later learn that you need a letter grade for a course that you are registered for or completed using the Pass/No Pass Grade Option, you will need to retake the course to earn a letter grade.

International students and Post-Secondary Enrollment Option Program (PSEOP) students may not be eligible to utilize the Pass/No Pass option.

Grade Disputes

Grade disputes are challenges to recorded grades. Cuyahoga Community College has adopted a Grade Dispute procedure to ensure that academic evaluation is fair and professionally performed. The faculty has chief responsibility for academic evaluation. You are responsible for maintaining standards of Academic performance set by the instructor for each course in which you are enrolled. Assistance with the grade dispute procedural process is available through the academic deans at each campus. Grade disputes must be filed by a student no later than sixty (60) days after the disputed grade is recorded.

The grade dispute procedure can be found at <http://www.tri-c.edu/student-resources/student-handbook.html>

Incompletes

A grade of I (incomplete) may not be possible and is not automatic. A notation of “I” indicates that a student has not completed all course requirements as a result of circumstances to be beyond the student’s control (The instructor of the course and the MLT program manager will evaluate and make the final determination). A student must personally request an incomplete grade from their instructor. If given, a student must complete all course requirements no later than the end of the sixth week of the academic term following that in which the “I” was noted. Failure to complete such requirements will result in an “F” (failing) grade. Refer to the Student Handbook on My Tri-C Space.

Withdrawal

Withdrawal from a course must be initiated by the student prior to the College’s published deadlines each semester. To withdraw from a course or courses, students must withdraw online or submit a completed withdrawal form by specific deadline dates. These dates can be located on *my Tri-C space* at <http://my.tri-c.edu>, My Info Tab, Registration Information channel, current Registration Information link. The refund schedule for all parts of terms within a semester and the Summer Session is determined proportionately to the full semester schedule which is established by Tri-C procedure.

Withdrawals related to student conduct are administrative withdrawals approved by the Dean of Student Affairs or his/her designee. All transactions involving withdrawal from courses shall be done in writing and on forms provided by Tri-C or through electronic means. A student’s failure to attend classes shall not constitute an official withdrawal. (Source: Tri-C Student Handbook).

Withdrawal from the Program

Voluntary Withdrawal

If a student chooses to voluntarily withdraw from the program, he or she must submit this intention in writing to the program manager. The program manager will then respond to the student with written confirmation of the request. In order to be readmitted to the program in the future, the student should follow the readmission procedure in this handbook.

Involuntary (Dismissal) Withdrawal

If the dismissal is involuntary, refer to the dismissal procedures in this handbook.

Dismissal Policies

Dismissal from the Medical Laboratory Program

A student may be dismissed from the **Medical Laboratory Program** for the following reasons:

- Failure to complete the program in the original sequence, due to withdrawal from program courses or failure of program courses.
- Failure to adhere to the College procedure 3354:1-30-03.5 Student Conduct Code. The Student Conduct Code applies to students when in clinical sites and field experiences.

- Dishonesty in the form of falsifying test results/QC, cheating on examinations, knowingly reporting inaccurate test results, avoiding responsibility for errors, evidence of lying.
- Submitting work (papers) of others as your own; plagiarism.
- Failure to collect specimens and/or perform test procedures as directed.
- Being under the influence of alcohol or drugs on campus, at a clinical site, or any other program related activities.
- Any form of unprofessional behavior on campus or at an off-campus assignment, including, but not limited to, the use of profane or vulgar language, hostility, insubordination, demonstration of uncooperative or negative attitude toward college faculty, clinical instructor, patients, or fellow students.
- Failure to maintain confidentiality of patient records or violation of HIPAA regulations.
- Failure to maintain appropriate patient records at the health care facility to which assigned.
- Accepting gratuities from patients.
- Engaging in unethical or unsafe behavior at a clinical site, in the classroom, laboratory, or any other program related activities.
- Violation of College, Program or Clinical Site procedures.
- Academic Honor Code: The student will abide by the Academic Honor Code. The student agrees not to receive or give aid during examinations. The student agrees to conduct him/herself honestly in all clinical and laboratory procedures. The student agrees to work alone on assignments unless otherwise indicated. This includes giving aid to student partners during laboratory practical examinations. Failure to abide by this Code will result in dismissal from the program.

If a student is dismissed from the program for the any of the above (non-academic) reasons, they will not be given the privilege of applying for re-admittance into the **Medical Laboratory Program** and may be precluded from admission to another Health Careers Program. The student may also be charged under college procedure 3354:1-30-03.6 Student Judicial System.

Academic Dismissal

A student may also be dismissed from the program for the following reasons:

- In MLT courses, MLT students must attain a minimum 2.50 accumulative GPA by the end of Phase two. If this accumulative average is not attained or maintained, the student may be dismissed from the program. After review by the MLT faculty and program manager, the student receives a dismissal letter from the MLT program manager which will also describe readmission procedures for the department of Medical Laboratory Technology, if applicable.
- Excessive absenteeism: missing more than one week of a class (based on 16 weeks).
- Excessive tardiness/leaving early.
- Failure of a program course or a prerequisite course.
- Failure to demonstrate professional behaviors.
- Inability to communicate in English (college or clinical site)
- Failure of background, drug testing or non-completion of “other requirements” with the College’s accepted vender.

A student may apply for re-admittance into a Health Career Program if they are withdrawn for the above reasons. They must follow the Re-admittance Policy of the program into which they are seeking re-admittance.

* Dismissal means the involuntary and total separation of a student from the college.

Health Careers Programs Temporary Leave of Absence Procedure

Special problems and unforeseen circumstances relative to the program or graduation should be called to the attention of the program manager and/or an academic counselor.

If, during the course of a semester, a student finds it necessary to take a temporary leave of absence, the request for the Leave of Absence must be submitted in writing to the program manager with sufficient information to explain the situation. In the event that the student is ill or otherwise indisposed, the written requirement may be waived, or the program manager may initiate the written action independently.

A Leave of Absence will be granted for no more than one semester, after that the readmission policy must be followed.

**** PLEASE NOTE:** Any student who takes a Leave of Absence from the program and is then readmitted; must follow the current semester sequence for graduation from the program and the current program handbook.

READMISSION PROCEDURES FOR MEDICAL LABORATORY TECHNOLOGY

A student may be readmitted only once. Readmission will be granted on a space-available basis only.

Re-admittance Policy

Re-admittance is not guaranteed. If a student leaves the program for any reason other than disciplinary action, he or she must do the following to be re-admitted:

1. Must meet a minimum GPA requirement for the program.
2. A written request to return to the program must be submitted to the program manager.
3. Written documentation from a medical authority that student is able to return; if that student left for health reasons.
4. The student must have a written educational success plan that must be approved by the program manager and will become a mutually agreed upon contract. Failure to abide by this contract will result in dismissal from the program.
5. A student returning to a program after a one-year absence will be required to complete another BCI.
6. Students meeting re-admittance criteria may return once within two years, on a space available basis. Return to a clinical site cannot be guaranteed.
7. Students requesting re-admittance to the program after more than a two-year period must repeat the program from the beginning and re-submit a new application.
8. Due to the rapid changes in health technology, students may be required to repeat courses they have already successfully completed as determined by the program manager and instructional staff. The student may require remediation and/or demonstrate proficiency through various modes of assessment.

The [College Procedure on Academic Status](#) explains the college's academic probation and dismissal process including the GPA requirements for each level of credit hours attempted.

4. Due Process

Students are expected to be successful, professional, and must follow safety guidelines while at Tri-C and during their clinical practicum. Any academic performance which is determined by the MLT program as unsatisfactory, unprofessional, unsafe, and/or adversely interferes with the learning environment will be addressed by the program director. Students that do not meet MLT Program expectations will be notified to meet with the program director to discuss a corrective plan. If the agreed upon plan is not followed, the student will be referred to the Health Careers and sciences associate dean and maybe dismissed from the program.

5. Student Change of Contact Information

In addition to submitting a change of address, phone or personal email through My Tri-C Space, using the “Student Tab” in the “My Info” section, please inform the program director or manager of changes in your contact information. Please inform the program director of any changes in your contact information by emailing ayman.idrees@tri-c.edu.

Section VI – Language Proficiency Requirements

The College establishes the language proficiency requirements to enter college level courses in this page: [English Language Proficiency Requirements for Admission](#) and specific scores can be reviewed on the linked information.

Section VII – Student Resources

1. Tutoring

[Tutoring Services](#) are offered at each campus tutoring center. There is support for a wide variety of subject at each campus. Please notify your faculty instructor or the MLT program manager if you feel that you need a tutor. Tutors may be available, at no cost to the student, for academic courses. Students are encouraged to form study groups to enhance learning in MLT classes.

It is essential that the student understand that the quantity of material covered in this major is extremely vast, and of a difficult nature. One must basically learn a whole new language of medical terms. The standard rule of thumb for general Tri-C coursework is to spend a minimum of 2 hours outside of class studying, per one credit hour of class. Hours will often have to be exceeded in this program. The student should also know that during the field experience rotations, many daytime hours may be spent at the clinical sites, and this will inhibit working outside of school. Work and family obligations will have to be scheduled in order to accommodate the program, not vice versa.

2. Student Accessibility Services

[Student Accessibility Services](#) provides support to students with disabilities at all College campuses, site, locations or online course. To receive services, students must schedule an appointment with a student advisor and provide documentation of a disability. The [Student Accessibility Handbook](#) is another source of information for students.

3. Student Safety

The college is committed to providing a safe and secure environment as outlined in the Safety and Security Policy:

3354:1-50-04 Safety and security policy

<https://www.tri-c.edu/policies-and-procedures/documents/safety-and-security-policy.pdf>

4. Other Resources

The following links can help you identify additional resources for completing a degree or program:

[CLEP](#) (College Level Examination Program)

[Credit by Exam \(CBE\)](#)

[Credit for Prior Learning](#)

[Standardized Training and Certification Programs \(ACE\)](#)

[Transfer Centers](#) on each campus provide information on transferring to and from Tri-C, Credit for Prior Learning, Articulation Agreements and State Wide Transfer Guarantees.

[Transfer Students](#)

[University Partnerships by School](#) are available for students interested in transferring to a particular institution or program.

The program director may initiate a waiver/substitution form for courses transferred from other institutions and meet the MLT course objectives

Section VIII – Accreditation and Credentialing

1. College and Academic Program Accreditation

The College's accreditation by the Higher Learning Commission is maintained and updated at this link [Accreditation.](#)

Program accreditation information is maintained on the program web page and in the list linked here: [Programs Accreditation Bodies](#).

Tri-C's Medical Laboratory Technology Program is accredited by the [National Accrediting Agency for Clinical Laboratory Sciences \(NAACLS\)](#) 5600 River Rd., Suite 720, Rosemont IL 60018. Telephone: 773.714.8880

Boards, National and/or State Testing

Graduates from the MLT program at Tri-C are eligible to take the [American Society for Clinical Pathology \(ASCP\)](#) Board of Certification examination.

2. Boards, National and/or State Testing

College and Academic Program Accreditation

Cuyahoga Community College is [accredited](#) by the Higher Learning Commission.

Tri-C's Medical Laboratory Technology Program is accredited by the [National Accrediting Agency for Clinical Laboratory Sciences \(NAACLS\)](#) 5600 River Rd., Suite 720, Rosemont IL 60018. Telephone: 773.714.8880

Boards, National and/or State Testing

Graduates from the MLT program at Tri-C are eligible to take the [American Society for Clinical Pathology \(ASCP\)](#) Board of Certification examination.

Section IX – Costs

1. Tuition and Fees

The [College Tuition and Fee Schedule](#) including program related fees and supplies are part of the program cost.

The following costs are also incurred, and are subject to change and not limited to:

Possible drug screen, (depends on the clinical site) ~ \$40

Professional Liability Insurance from Tri-C ~\$20

Physical examination, including vision test (variable) ~\$150

Immunizations/titers (including Hepatitis B series) (variable)~\$200

Certification in adult BLS CPR American Heart Assoc. (variable)~\$85-150

Proof of medical insurance coverage or student health insurance (variable)

Uniforms (scrubs or uniforms) and leather shoes (variable)

All stationary supplies (ream of paper for printing documents etc.)

Parking/transportation fees to/from the clinical site, if applicable

Supplemental Fee's for most MLT courses ~ \$55
ADP Complio account ~ \$130

2. License, Application, Certification and/or Examination costs

Costs of the ASCP BOC Examination

To determine what costs may be covered by financial aid, visit one of the college's financial aid offices located at each campus. Visit <http://www.tri-c.edu/paying-for-college/financial-aid-and-scholarships/index.html> for more information.

3. Financial Responsibility

To determine what costs may be covered by financial aid, visit one of the college's financial aid offices located at each campus. Visit <http://www.tri-c.edu/paying-for-college/financial-aid-and-scholarships/index.html> for more information.

Visit Tri-compliance.com for recent Health requirements, insurance, and background check requirements

4. Supplies

It is the student's responsibility to purchase required textbooks, and other instructional supplies

Section X – Field and Clinical Experiences

1. Clinical Experience

The final semester of the program includes the clinical directed practice - 400 clinical hours (approximately), hands-on, daytime clinical directed practice at an area hospital/clinical site to complete skill training in all lab disciplines (The MLT Program cannot guarantee the immediate availability of clinical sites). Start times may be as early as 4:30 am for some labs. The exact times of starting and ending each shift may vary and may change depending on the clinical site the specific section of the laboratory. Clinical sites are typically located within 50 miles of the Metro Campus, there may be a need to rotate through different sites to fulfil all the needed requirements. There can be no guarantee on where you will be located for clinical sites. Please take this commitment into consideration when applying to the program and discuss any required accommodations with the program director in advance.

2. Internships, Practicums, Field Experience, and Cooperative Education

Student placements at the clinical sites are determined by the MLT program manager/faculty. Considerations such as transportation needs, distance of travel, current employment and veteran status are taken into consideration for student placement. Some clinical sites may accommodate multiple

students for the clinical rotation at one or multiple locations of the same and or other organizations. Hospitals/sites that have affiliation agreements with Cuyahoga Community College and can serve as a clinical site for the field experience portion of the program are:

Louis Stokes Cleveland Department of Veterans Affairs Medical Center Wade Park Facility (Cleveland, OH), University Hospitals of Cleveland (Cleveland OH)*, MetroHealth Medical Center (Cleveland, OH), and The Cleveland Clinic (Cleveland, OH)*.

* Multiple locations

Please Note:

- Disclaimer: In any given year, a clinical site may request not to host students due to institutional disruptions which may include but are not limited to accreditation inspection, laboratory administrative personnel changes or unexpected personnel leave, building construction and/or laboratory relocation, major instrumentation/computer installations. Therefore, placement at a specific institution is NOT guaranteed. Affiliation agreements with the clinical sites are on the College KWeb and may be reviewed by the student upon request.
- Disclaimer: If the number of students exceeds the number of clinical sites participating in the field experience for a given semester, an alternate list of students will be formed using date of application/completion of pre-requisites. A GPA will be tabulated for all program courses, and students will be ranked from high to low and students will be placed in that order as soon as a clinical site becomes available.
- Students must register and pay the usual fees per credit hour for clinical instruction received at the clinical site. While at the clinical facility, the student is considered to be a Tri-C student, and not an employee or trainee of the hospital.
- Service work performed by the student in a clinical setting (at the clinical site) must be outside of regular academic hours, noncompulsory, paid, supervised on site, and subject to all employee regulations, and tax laws.
- Some clinical sites require parking charges. If this constitutes a hardship, please inform the program manager. This will limit the selection of sites at which the student will be able to complete his/her field experience. Training at sites is daytime only. There are no exceptions.
- Clinical sites may be within a 50-mile radius (or more) of Metro Campus.
- It is the student's responsibility to have reliable transportation to the clinical site.
- Students will be given the opportunity to select three top choices for placement.
- Due to the shortages of clinical sites, students may have to attend more than one site.
- The program manager/faculty will make the final placement decision.
- The student must have a complete and compliant Complio account at least 3 months prior to directed practice placement

Directed practice is full time and runs Monday through Friday. In addition, weekly participations in an on-line seminar is required. There are no evening hours available. This is not negotiable; therefore, students need to plan their other outside obligations around the clinical experience. Students who cannot be present during these hours should consider their decision to applying to the program.

The student is expected to arrive and leave the clinical site as scheduled. Tardiness, early departure, unexcused absences may lead to student being removed from the clinical site, and failing the course

Students are not permitted to take the place and or perform duties of a staff member during their clinical experience. Students must be supervised by a qualified staff member while performing medical laboratory procedures

Students should expect to meet the requirements of the clinical facility in addition to the MLT program's requirements. The College and or its Clinical affiliate can terminate the directed practice at any time for including, but not limited to tardiness, health and/or safety risk, lack of attendance, inappropriate behavior, lack of personal hygiene, and failure of student to meet performance standards.

Supervision and bench instruction are provided by hospital/site staff. During clinical education the College's MLT faculty members visit each facility to review student progress with the laboratory trainers and the student. Practical examinations are given at the discretion of clinical instructors. It is possible for clinical experience to vary from one site to another; however, clinical education in all affiliated sites meets or exceeds college and national accreditation standards. Since specific program training time requirements must be met, no unexcused absences are allowed during clinical education. Absences from the clinical setting must be made up according to the policy of the individual site and at the convenience of the clinical site. Approval must be made by site education coordinator and the program manager

The program manager is the College's authorized representative who is responsible for placing students for clinical education. The College cannot guarantee the availability of clinical sites. Students may be placed at multiple sites to complete the training. The College cannot assure any student placement in the hospital/site of his/her choice, but will consider placement in regard to geographical location of the facility or the student's residence.

3. Service Requirements

No Volunteer hours or service requirements are needed before or while in the MLT program

4. Performance Expectations

Evaluation Procedure for Filed Experience:

The intent of Tri-C's MLT Program is to assist the MLT students in acquiring technical theory, acceptable professional conduct and work habits, and practical competency in clinical laboratory procedures. To determine the effectiveness of the learning environment, evaluation methods must be implemented in each of three knowledge acquisition areas. Objective based evaluation forms provided by the MLT program director must be filled by clinical instructors to evaluate clinical students' performance and professionalism. Satisfactory progress must be maintained in all assigned laboratory departments during the practicum experience in order to successfully complete the clinical training.

*If closures impact the field experience or course completion, the program administration will address any adjustments or changes based on student needs

Evaluation Methods

Technical Theory

Students are taught technical theory at the Metropolitan campus. The student's level of technical theory attainment is evaluated by the Tri-C faculty principally through the use of quizzes, examinations, assigned homework, and research papers.

Professional Conduct and Work Habits

The field experience evaluation form has a section for professional conduct and work habits for each laboratory discipline. The student's conduct is formally evaluated at least twice each semester by the clinical trainer and reviewed by a Tri-C faculty member or the program manager. By utilizing the Evaluation of Student Professional Conduct and Work Habits form, the clinical instructor and the program manager have a method of documenting the student's progression through the various clinical disciplines. In addition, Accident and/or Incident Report forms shall be used by the clinical site to document any accidents or an unusual event that may have taken place during the student's rotation. The completed Accident and/or Incident Report must be sent to the program manager within 24 hours of the occurrence and requires the signature of the student. It will remain part of the student's permanent file. Please refer to the Body Fluid Exposure, Reporting the Incident section for complete details and the form.

Student Feedback Evaluation

To improve upon the quality of the clinical experience, each student completes an anonymous Student Evaluation form for their clinical site. All evaluations are reviewed by the Tri-C faculty and the clinical affiliates to assess the clinical instruction and to improve the quality of the clinical experience for future MLT students. See Addendum.

Practical Competency

The Medical Laboratory Technician (MLT) profession is one in which the student must practice a variety of techniques until competency is reached. The Tri-C MLT Program is designed to introduce basic practical experience to the student through campus laboratory exercises. In the college setting, the student is evaluated according to minimal requirements for speed and accuracy. During the approximately 400hrs directed practice phase at a clinical facility the student will gain speed, accuracy and experience working with the normal flow of specimens and the number and variety of clinical tests performed by the hospital laboratory during the typical working day. It is expected that the student can communicate, receive and process verbal and written information correctly using standard business English. During the field experience phase the student will become familiar with all laboratory instruments and the laboratory's computer system. As required by the Ohio Department of Higher Education and Cuyahoga Community College, students must participate in an online MLT seminar while assigned to an affiliated clinical site.

Upon completion of the directed practice phase at the clinical site, the student is expected to develop technical competencies involving speed and accuracy that are comparable to the competencies of an entry-level MLT graduate. To guide the clinical instructor and the student toward the attainment of these technical competencies, evaluation tools for each laboratory discipline are distributed to both the student and the trainer/education coordinators at the clinical site. The student's letter grade for each semester in MLT 2940 will be based on these evaluations. The clinical instructor is to be notified by the student if a particular procedure listed on the evaluation has not been observed or practiced. In some instances, a particular procedure is not routinely performed at a clinical site. A "NOT APPLICABLE" (NA) will be

indicated on the evaluation form. A student will not be penalized for procedures not performed at a particular site.

The clinical trainer will observe and evaluate the student's techniques and quality of test results in order for an accurate evaluation to be completed. The trainer will also observe and evaluate work habits, neatness of working space, punctuality, management of time (Professional Conduct and Work Habits) and general laboratory techniques and procedures such as but not limited to; pipetting, streaking culture plates, using universal precautions etc. A Tri-C faculty will review the evaluations for each discipline, discuss the evaluation with the student, and will assign a grade for the rotation based on the evaluations. Students must pass each laboratory section in order to pass the MLT 2940 clinical Experience. Failure to do so may result in possible dismissal from the program.

Each clinical discipline will have an evaluation tool. The student will be provided with the evaluations by the program manager. It is the student's responsibility to read it and be aware of the contents, present it to each trainer, monitor it daily and be sure it is filled out by the clinical trainers as competency in skills is accomplished in each indicated skill.

DIRECTED PRACTICE OBJECTIVES:

Performance objectives for each discipline are listed in this manual. It is the responsibility of the student to become familiar with each objective, to communicate this to the trainer, and to ensure that each competency has been observed and/or mastered, and evaluated. As the student moves through the clinical rotation, he/she should be aware of all competencies listed in that discipline, and to assure completion of same.

Technical Objectives:

At the end of the 400- hour clinical experience phase at the affiliate clinical site, the student will be able to:

1. Perform routine procedures in all the major workstations of the clinical laboratory within a reasonable time period, displaying organizational skills and to a degree of accuracy and precision established by the hospital's instructors.
2. Relate fundamental scientific information to each routine diagnostic procedure by discussing with the instructor the purpose of the test, principle of the procedure, reference and critical values where applicable.
3. Analyze the results of routine diagnostic procedures and interpret data, correlating them with possible patient diagnosis and other test results.
4. Recognize malfunctions of equipment, report it to the supervisor, and discuss possible causes and corrections.
5. Maintain equipment and work areas in the manner specified in preventive maintenance protocols.
6. Observe and participate in the functioning of each clinical area as a unit.
7. Display familiarity with and practice all safety policies and regulations of the laboratory and hospital.
8. Collect and plot control data and recognize when tests are out of control. Have a basic understanding of quality control and quality assurance.

9. Recognize pre-analytical, analytical and post-analytical sources of error, and effectively troubleshoot test results.
10. Process any results to completion by utilizing the LIS, paper reports, phone calls or any other reporting means.

Behavioral Objectives:

1. Recognize the role of clinical laboratory professional as directly related to patient care.
2. Recognize the role of the clinical laboratory professional as related to all other hospital professional, technical, administrative and supportive personnel and interact with respect for their roles in patient care.
3. Maintain an orderly, clean work area.
4. Maintain satisfactory attendance including punctuality in both college courses and at the affiliate site.
5. Recognize the need for continuing education and participate in the same.
6. Recognize the importance of passing a national examination for certification in the profession as a Medical Laboratory Technician.
7. Recognize the importance of achieving professional credentials.
8. Become aware of all laboratory accrediting agencies, e.g. College of American Pathologists (CAP), Joint Commission on Accreditation of Hospitals Organization (TJC), American Association of Blood Banks (AABB) and Food and Drug Administration (FDA).
9. Demonstrate professional medical ethics and attitudes and incorporate these ethics and attitudes in daily practice and procedures.
10. Maintain patient confidentiality in accordance with all rules and regulations of the Health Insurance Portability and Accountability Act (HIPAA).
11. Accept the duties and responsibilities of a student as defined in the Tri-C Student Handbook, the MLT Program Handbook.
12. Abide by the existing and future rules and regulations of the clinical affiliate.
13. Communicates, receives and processes verbal and written information correctly in standard business English.

Specific Technical Objectives:

At the end of the field experience (clinical) experience, the student will be able to:

1. Correctly perform laboratory tests with accuracy, dexterity, confidence, and speed.
2. Understand the use and care of laboratory instruments.
3. Perform opening and shutdown procedures on laboratory instruments.
4. Perform simple adjustments to keep instruments working accurately.
5. Recognize mistakes/errors and be able to correct them in a timely manner.
6. Pipette (manual or automatic) skillfully and measure accurately in preparing reagents or controls and while setting up tests.
7. Set up batches of tests in an organized and careful manner knowing what is necessary before starting (glassware, reagents, specimens etc.).
8. Calculate results accurately and know the reference and critical ranges (where applicable) for the laboratory methods.

9. Duplicate results on abnormal specimens within $\pm 5\%$, or as indicated.
10. Recognize normal and abnormal reference ranges.
11. Compare and interpret the results of related tests in order to evaluate their accuracy and relate them to disease states (e.g. H & H and RBC morphology or indices).
12. Evaluate which tests take precedence over others in a critical situation.

Performance Objectives:

Maintenance

1. Perform preventive maintenance on automated and non-automated instruments.
2. Assume responsibility for a clean and neat working area.
3. Identify all equipment and procedural methods by name and principle.
4. Assume the responsibility for maintaining clean glassware.

Phlebotomy

At the end of the clinical rotation period, with 95% accuracy, the student will be able to:

1. Collect appropriate blood specimens for designated tests which are congruent with the patient's considerations of age and status.
2. Positively identify patient by identification band or by nurse verification.
3. Approach the patient in a courteous and considerate manner.
4. Select appropriate anticoagulant and tube size.
5. Select the venipuncture site in accordance with hospital preferences and standards of the profession.
6. Label all specimens correctly.
7. Handle specimens in accordance with any special requirements.
8. Utilize isolation techniques suitable to the patient's situation.
9. Employ sterile technique for collecting blood cultures.
10. Follow prescribed approach and techniques on nursery patients.
11. Collect adequate blood samples by capillary or butterfly punctures.
12. Demonstrate proper techniques for both heel and finger punctures.
13. Evaluate whether to perform phlebotomy on certain patients and when to ask for assistance.
14. Observe all precautions for the safety of the patient and the phlebotomist.
15. Collect blood specimens by both syringe and vacuum tube methods, if materials are available.
16. Collect venipuncture specimens generally within a five-minute time period excluding washing hands and gloving.
17. Demonstrate ability to handle an emergency situation when a patient becomes ill during phlebotomy.
18. Inform the proper authorities when exposure to contaminated material is suspected.

Routine Microbiology

At the end of the rotation period, the student will be able to assume the responsibility of an MLT by meeting the following objectives to a degree of 95% accuracy:

1. Perform the clerical functions relevant to processing incoming clinical specimens.

2. Process clinical specimens for routine culture and smear. Select appropriate media based on source of clinical specimen. Inoculate and streak plated media for isolation and quantitation of microbial growth.

Select appropriate incubation conditions for inoculated media (atmosphere and temperature). Prepare smears of clinical samples for staining.

3. Prepare and examine gram stained smears of clinical specimens. Perform gram stain procedure with controls. Microscopically detect the presence of microbes and cells (WBC's) on stained smears. Quantitate microbes and cells on stained smears.

4. Examine blood cultures. Detect visible evidence of microbial growth in blood culture broth. Perform subcultures and smear procedures on broth bottle.

5. Identify known cultures from clinical specimens as a practice exercise. Differentiate various organisms by colonial morphology on a variety of media. Prepare and examine gram stained smears from microbial colonies. Select, perform, and interpret certain biochemical tests and use the results to identify unknown microbes. Differentiate between normal flora and pathogenic or potentially pathogenic microbes.

6. Set up, read, and interpret anti-microbiological susceptibility tests.

7. Observe and/or perform quality control procedures on reagents and media.

8. Utilize proper techniques for safe handling of potentially infectious materials.

9. Understand the basic organization of the clinical microbiology lab.

Mycobacteriology and Mycology

During the rotation the student will:

1. Observe the concentration procedure for acid fast bacilli (culture and smear preparation).

2. Observe the staining procedure and microscopically examine positive and negative examples of fluorochrome stains for acid fast bacilli.

3. Observe examination of acid-fast cultures, including growth characteristics of stock mycobacteria.

4. Observe examination of fungus cultures.

Parasitology

During the rotation the student will:

1. Examine the protocol for processing of specimens for parasitology.

2. Observe and/or perform the formalin-ethyl acetate concentration technique.

3. Observe and/or perform the trichrome stain procedure.

Hematology

At the end of the hematology rotation period, the student will be able to perform (with 95% accuracy, unless otherwise noted):

Erythrocyte (RBC) and Leukocyte (WBC) Counts

1. Process specimen utilizing equipment, instruments, or techniques necessary for specific analysis.

2. Enumerate formed elements in the blood or other fluids utilizing instrument counting techniques.

3. Perform daily run of blood counts on Coulter S or other instruments with accuracy within acceptable range.

4. Recognize and take appropriate action for common instrument malfunction and/or test procedure variations.

5. Identify possible sources of error for each method used.
6. Perform quality controls as required by the lab.
7. Perform routine maintenance procedures on counting methods. Explain the derivation of the red cell indices.
8. Identify the normal range for each of the seven parameters of the Coulter S as reported.
9. Confirm the accuracy of the interrelated tests performed by the Coulter S., e.g., hemoglobin, hematocrit, indices, total RBC.

Differential Cell Count

1. Prepare acceptable blood smears.
2. Differentiate between good and bad smears according to criteria defined by the instructor.
3. Stain blood smears with Wright's stain or other hematological stain using both manual and automated methods.
4. Describe the characteristics of a good stain.
5. Perform differentials on peripheral blood and gain enough expertise to perform eight normal differentials in 60 minutes categorizing cell types and noting morphologic data on red cells, white cells, and platelets. Results should be within two standard deviations of the results obtained by the lab staff.
6. Differentiate between mature and immature leukocytes according to laboratory criteria.
7. Differentiate between typical and atypical lymphocytes and understand the significance of atypical lymphocytes and under what conditions they are reported.
8. Differentiate normal from abnormal erythrocytes according to size, shape, hemoglobin content and inclusions.
9. Differentiate between normal and abnormal platelets according to number, size, and morphology.
10. Given a description of a leukocyte morphologic finding, discuss the clinical significance.
11. Given a description of a red cell abnormality, discuss the clinical significance of the finding and, if possible, the probable origin.
12. Relate RBC morphology with the appropriate test (hemoglobin, hematocrit, indices, and reticulocyte count).
13. Distinguish between normal and abnormal differential results for adults, children, and infants.
14. Given hemoglobin, red cell count, and hematocrit, be able to calculate the MCV, MCH, and MCHC and be able to recognize on the blood smear any significant variation from normal in the RBC morphology.

Eosinophil Counts

1. Name the chamber and describe counting areas.
2. Name the stain and the procedure for its use.
3. Cite the normal range for eosinophil counts and the clinical significance.
4. Perform three or four eosinophil counts and compare results to absolute number of eosinophils.

Platelet Count

1. Describe the method, sources of error, and normal range for the method used.
2. Perform at least five platelet counts duplicating prior results within $\pm 5\%$.
3. Compare platelet counts with smear estimation of platelets.
4. Cite the normal range for platelets and the clinical significance.
5. Correlate the platelet count with bleeding.

Erythrocyte Sedimentation Rate (ESR)

1. Perform five ESR's which agree within ± 2 standard deviations with the lab results.

Reticulocyte Counts

1. Perform five counts which duplicate the results of the lab staff within $\pm 0.5\%$.
2. Describe the significance of reticulocytes.

Coagulation

1. Perform three daily batches of prothrombin time (Protime) tests, on duplicate samples, using automated instruments. Duplicate sample results must agree within 2 seconds.
2. Perform prothrombin times with alternate methods, if available.
3. Perform three daily batches of partial thromboplastin times (PTT) using automated instrumentation.
4. Perform other coagulation procedures as are routinely practiced in your laboratory.
5. Perform quality control measures as prescribed by your laboratory.
6. Relate abnormal test results with patient diagnosis.

Other Tests

1. Observe and/or perform any other procedures which are not considered routine. Review the principle, technique, and interpretation with the instructor as time permits.

Test Results

1. Recite the normal ranges specific to the laboratory for all tests performed.
2. Recognize abnormal or inconsistent patient results and alert the instructor.
3. Relate abnormal results to the patient condition and to other laboratory tests.
4. Recite sources of error for all methods employed.
5. Recognize test results which deviate from normal and to the degree that requires repetition of the test and evaluation of the results by the instructor.

Urinalysis

At the end of each rotation, the student will be able to perform (with 95% accuracy, unless otherwise noted):

1. Perform ten routine urinalysis examinations according to the laboratory protocol within 60 minutes, duplicating previous results within 10% or 2 cells, whichever is most reasonable.
2. Prepare urinalysis reports according to the method used by the laboratory.
3. Correlate results with possible patient diagnosis.
4. Determine course of action when reagent strip reactions do not correlate with confirmatory tests or with microscopic examinations.
5. Describe the crystals most commonly found in acid/alkaline urine.
6. Describe other pathologic microscopic elements which may not be routinely observed.
7. Identify each test used in the routine urinalysis, the manufacturer of the reagent strips, and other reagents employed.
8. Prepare reagents used in semi-quantitative tests (when possible).
9. Perform quality control procedures on equipment and reagents.
10. Maintain recordkeeping systems.
11. Maintain a neat and clean work area to the satisfaction of the instructor.
12. Observe all other tests performed in the area and review theory and interpretation with the instructor.

Serology

At the end of each rotation, the student will be able to perform (with 95% accuracy, unless otherwise noted):

1. Collect a proper specimen and process it in the approved manner for testing.
2. Identify the manufacturer and the materials used in each test.
3. Perform quality control tests with each procedure.
4. Perform C-reactive protein (CRP), anti-streptolysin O screen (ASO), mononucleosis, and rheumatoid factor/antibody (RF/RA). Results must be within the accuracy determined by the instructor. Explain the principle of each procedure. State the normal values for each procedure and discuss the diagnostic value of normal and abnormal results.
5. Perform ten VDRL or RPR qualitative tests duplicating the instructor's values exactly.
6. Perform tests for pregnancy, agreeing exactly with previously performed results.
7. Observe the performance when possible of any or all of the following tests: ANA, HBsAg, DNA, FTA-Abs, Rubella, Immunoglobulins. Explain the principle of each procedure. State normal values for each procedure and discuss the diagnostic value of normal and abnormal results.

Blood Bank

At the end of the rotation period, with complete accuracy, the student will be able to:

1. Collect and label an adequate specimen from the patient for use in all blood bank procedures.
2. Determine blood group and Rh type according to laboratory procedure.
3. Select appropriate donor blood and perform compatibility tests.
4. Recognize and resolve problems associated with donor blood selection.
5. Perform a STAT blood grouping and cross match four compatible units within one hour.
6. Perform antiglobulin tests to detect red cell sensitization.
7. Perform antiglobulin tests to detect and identify antibodies in serum or to detect antigens on red cells.
Explain reasons for false positive or false negative results in antiglobulin testing.
8. Identify the genotype of a patient as a practice exercise.
9. Identify those mothers eligible to receive Rho (D) immunoglobulin, if procedure is used.
10. Perform compatibility tests used to ensure valid use of Rho (D) immunoglobulin, if procedure is used.
11. Investigate a transfusion reaction according to protocol and determine possible causes.
12. Utilize protocols for determining the priority of requests for blood and blood components, e.g. routine vs emergency.
13. Describe the methods used to procure adequate and appropriate blood and blood products for the Blood Bank. Perform in-house processing as needed.
14. Explain the preparation of blood components appropriate to therapeutic needs.
15. Perform and record routine quality control procedures.
16. Describe and help maintain record keeping systems utilized in the Blood Bank.

Clinical Chemistry

At the end of each rotation, the student will be able to perform (with 95% accuracy, unless otherwise noted):

1. Describe proper methods of specimen collection, accessioning, and reporting results for the department.

2. Conform to laboratory quality control policy. Select and prepare quality control samples appropriate to monitor the procedure. Evaluate sample values according to proper protocol. Suggest protocol to follow when values are out of expected range. Perform quality control procedures as assigned (including daily and weekly maintenance checks). Maintain quality control records as required in the laboratory manual.
3. Perform all procedures available at the clinical site laboratory and explain the principle of the method.
Relate results with the linear range and describe corrective action if indicated. State normal values and recognize values outside this range which indicate immediate action (calling critical values to the supervisor's attention, repeating abnormal values).
4. Perform tests, manual or automated, as assigned. Prepare reagents. Perform procedure under supervision. Perform calibration checks where indicated. Perform routine cleanup and maintenance.
5. Observe operation of any sophisticated equipment as assigned (e.g. RIA, mass spectrometry).
Observe performance, troubleshooting. Discuss purpose of procedures performed as they relate to disease states.
6. Utilize laboratory computers.
7. Observe and perform functions as designated by the supervisor (e.g. completing workload lists, charting controls and temperatures).
8. Utilize time wisely.
9. Be aware of interdepartmental relationships (e.g. check results on a patient with abnormal chemistry results with other lab areas to confirm results).
10. Be aware of protocol followed to correct erroneous results, whether a lab error, collection or labeling error, or charting mistake.

In the event that insufficient clinical sites slots are available for a student to perform their field experience, the selection of those entering a field experience site will be determined by the admission date into the program (time stamp that application is submitted) and when admission criteria are met, then by GPA. Remaining students will be placed in the next available clinical site rotation. Declining or forfeiting a field experience placement will remove the student from his/her original cohort and requires re-application to the program and student may be placed on a waiting list for the program. There may be a several years wait to re-enter the program, which means starting all over again from the beginning. Remaining students will be placed in the next available clinical site rotation.

OBJECTIVES SUGGESTED MINIMUM SKILL TIMELINES WHEN PERFORMING ROUTINE PROCEDURES (TASK ANALYSIS):

Task	Time
Urinalysis (including microscopic)	6-10 analyses/30 min.
Manual normal differential on prepared smear, Count 100 cells, describe RBC's, estimate platelet and WBC counts	6/hour

Manual WBC, H&H	6-10 analyses/30 min.
Platelet count (including 20 min. incubation)	30 min.
Phlebotomy	5-8 min.
Gram stain (prepare, read, report)	10-15 min.
Blood Bank, type and cross-match	4 units/hour
STAT chemistries	according to site and analyzer

General Field Experience Policies

After demonstrating proficiency, students, **with qualified supervision**, may be permitted to perform procedures. However, students shall not take the place or responsibility of qualified staff. All sites abide by the Clinical Experience Agreement contact executed between the college and the clinical site.

Field learning experiences for the student will be assigned during the day shift of the hospital affiliate. Additionally, all training and makeup days are conducted on weekdays only unless approved in writing by program manager. The student is not expected to attend the clinical site when the college is closed for a day off. However, if the student needs to make up time, and the site approves, you may notify the program manager to obtain final approval.

Service work performed by the student in a clinical setting must be outside of regular academic hours, noncompulsory, paid, supervised on site, and subject to employee regulations.

Granting of the degree or certificate is not contingent upon passing an external certification or licensure exam.

Student Responsibilities:

1. Demonstrate eligibility by successfully completing all required didactic courses as outlined by the MLT curriculum.
1. Provide proof of current student liability insurance for each year of field experience to program manager.
2. Have health care insurance coverage while attending clinical field experience.
3. Perform background check and fingerprinting check through Tri-C approved vendor only; submit Rap Sheet release forms in a timely fashion if requested to do so.
4. Submit proof of physical examination and updated immunizations, including TB test and Hepatitis B vaccine, by uploading to [American DataBank- Complio](#) website.
5. Provide proof of current CPR course by uploading onto American DataBank- Complio

website.

6. Provide his/her own transportation to and from the clinical site
7. Abide by all existing and future rules and regulations of the clinical site. Pay any on-boarding fees, for example, Cleveland Clinic fee is \$50.
8. Respect confidential nature of all information pertaining to patient and physician by abiding by HIPAA regulations.
9. Be responsible for his/her own actions during clinical experience.
10. Appear at the clinical site in uniform/proper attire, ready to begin on time on all scheduled days.
11. Notifying clinical site & program manager if absent/late.
12. Conduct himself/herself in a highly ethical and professional manner at all times. The College Code of Conduct applies at all times at the clinical site.
13. The student is responsible for presenting evaluation forms to clinical trainers and to be sure it is filled out, all material is covered where possible, the site is notified of the clinical site visits by the Tri-C faculty/program manager and is present for the site visit.
14. Confidential information: A student must abide by the principal of confidentiality. By law, all information contained in a patient's health record is considered confidential. In addition, information pertaining to physician and/or hospital business is considered confidential as a matter of professional ethics. Information obtained during directed practice which pertains to patients, physicians, or hospital business is considered CONFIDENTIAL. Similarly, all such information discussed or made available in class or laboratory sessions is CONFIDENTIAL. Confidential information must not be disclosed to unauthorized individuals, this includes family and friends. To disclose such information is sufficient cause for IMMEDIATE DISMISSAL.
15. Student Feedback Evaluation: To improve upon the quality of the clinical experience, each student is required to complete an anonymous Student Evaluation form for their clinical site at the conclusion of the field experience, and turn in to the program manager. All evaluations are reviewed by the Tri-C faculty and the clinical affiliates to assess the clinical instruction and to improve the quality of the clinical experience for future MLT students.

TRI-C RESPONSIBILITIES:

Provisions for instruction, observation, supervision, and grading of students:

1. To visit each clinical site prior to placement of students to ascertain appropriateness of the setting for an educational experience.
2. To acquaint the clinical site with the extent and purpose of the work experience and of their responsibilities.
3. To inform the clinical site of the extent of the student's academic preparation for the purpose of appropriate work assignments.
4. To make on-sight observation of the student to coordinate learning experiences, discuss problems of mutual concern, and to offer assistance.
5. To provide individual on-sight consultations with students for the purpose of assessing evaluation and assisting with problems pertaining to the work experience.
6. To provide methods for student evaluation that are fair, brief, and meaningful.

7. To provide for discipline and/or corrective action as may be required.
8. To withdraw any student from the field experience facility for reasons of health, attendance, performance, or comportment upon receipt of written notice from the appropriate authority.
9. To maintain good communication with the laboratory directors, departmental supervisors and education coordinators of clinical facilities.
10. To determine the student's final letter grade at the end of the grading period, taking into consideration both written and verbal evaluations from clinical trainer and/or department supervisor.

FIELD EXPERIENCE FACILITY RESPONSIBILITIES:

1. To allow the student to learn by observation, instruction, and supervised practice, the broad range of duties performed by the MLT within the limits of the facility during days and hours mutually determined by the clinical site and the College.
2. To notify the clinical coordinator or program manager immediately, verbally and/or in writing, when the student does not meet program standards in order that corrective measures be initiated.
3. To notify the College, in writing, when s/he desires that a student be withdrawn from the field experience facility for reasons of health, attendance, performance, or comportment.
4. To assure that a competent professional supervises and evaluates the student during training within the field experience facility.
5. The agency (affiliate) will ensure that students will not be used to replace clinical staff. The final responsibility for care rendered to clients lies with the agency affiliate (hospital) department personnel.
6. The facility will provide emergency health measures to a student at the student's expense (at no expense to the facility and/or the college.)
7. The facility shall provide safe physical environment needed for the clinical experience within the limits of the facility.
8. To orientate the student to the existing rules and regulations of the facility and to inform the student of any changes to the rules and regulations while the student is in training at the facility
9. To orientate the student to the safety equipment, policies, and practices of the agency and its clinical laboratory.

Please Note: Any given hospital on the list may choose not to participate in the field experience education in a given year for various reasons such as but not limited to: Undergoing re-accreditation by various accrediting bodies, installation of major equipment such as robotics or computer systems, and re-organization/shortage of key personnel in the laboratory area.

Drug Testing

Students may be required to undergo drug testing *prior* to starting a clinical experience. Clinical sites may not be assigned until as late as 3 weeks prior to commencement of the field experience. Students failing to have the test conducted in a timely fashion will lose their clinical field experience slot, and will have to re-apply to the next available program cohort. The student is responsible for the cost of this testing. The type of testing needed, time restrictions and the cost of the testing will be dependent on the clinical site. Test results will be sent to the CCC Health Careers Contract Compliance Coordinator, Healthcare Education Initiatives at Cuyahoga Community College and they will be kept confidential.

If a student fails a drug test, Cuyahoga Community College is under no obligation to place a student at another clinical site. It is the student's responsibility to provide proper documentation to the CCC Health Careers Contract Compliance Coordinator, Healthcare Education Initiatives if they failed the test due to justifiable drug use. A student may not be able to complete the health career program if they cannot be placed in a clinical site due a failed drug test.

Professional Liability Insurance

Students are required to carry professional liability/malpractice insurance during their field experience. Registration for the MLT 2940 Clinical Experience course triggers automatic purchase of the policy. The policy is valid for one year.

CARDIOPULMONARY RESUSCITATION (CPR)

Prior to placement in the clinical setting the student must be certified in basic adult CPR (BLS Basic Life Support for Health Care Providers). Compliance with this regulation can be achieved by completing The American Heart Association of Cleveland BLS course in CPR. These are short one or two session programs, which are offered at varying times during the year. Cuyahoga Community College also offers an approved one semester credit class in CPR for credit or audit either through the non-credit or the credit courses. Proof of AHA certification in CPR must be current and uploaded to the American DataBank- Complio account prior to placement in the clinical setting.

Health Requirements

It is the responsibility of the student to arrange for all health requirements <https://www.tri-c.edu/programs/health-careers/documents/hcn-immunization-and-req-completion-guide.pdf> with his/her medical practitioner. ***(proof by titer lab report that you have immunity to Hep B is required prior to starting the on-campus labs and clinicals).*** All required items must be uploaded to the American DataBank- Complio website. Save a copy of all forms for yourself. Students are not permitted to enter the clinical phases of the program until physical exam forms, and all other requirements are completed. The student is responsible for the cost of the examinations and immunizations. NOTE: Students with allergies/sensitivities to latex/latex-based products must identify themselves to the program manager, faculty and clinical site personnel. Students should be aware that they may be exposed to these products in their course of studies on campus and at the clinical site. The student must receive written medical clearance from a physician to enter the program. Clearance must be submitted with the health form.

The physician, by signing the health form, also verifies that the student has the "Essential Cognitive and Physical Functions Necessary for Completion of Course Objectives" which are listed as part of the health form. The student also verifies that they possess the "Essential Cognitive and Physical Functions Necessary for Completion of Course Objectives" by signing and submitting that form to the program manager prior to the program start date. The student must disclose any impairment in essential functions

to the physician, and these must be documented. If significant, limiting health/physical conditions are present or the student is unable to submit evidence of good health and appropriate immunizations, the student will not be able to continue in the program.

Financial constraints will not be accepted as a reason for not completing the health form requirements. If this is a problem, please inform the program manager.

Health/Medical Insurance

Placement at a clinical site requires the students to carry some form of Health Insurance. This can include government plans such as Medicaid, or any company or private plan. The College may be able to suggest a student policy at lower cost. See program manager or assistant for details. Students will not be permitted to start without proof of insurance. The health insurance coverage must cover treatment for blood borne pathogen exposure in an emergency department of a hospital, or an urgent care center. Many student policies do NOT cover these sites, so carefully check with your insurer.

5. Holidays

The [College holidays procedure](#) lists recognized holidays. These dates are included as part of the College closed days on the [Academic Calendar](#). In addition to these dates, the College will close for Thanksgiving Recess and Winter Break. No credit courses will be offered on campus during Spring Break.

Students are not permitted to attend Clinical practice rotations while the College is closed

6. Hours

The MLT laboratory sessions are offered at the Metro campus between the hours of 8am and 4:30pm. The final semester of the program includes the clinical directed practice at an area hospital/clinical site to complete skill training in all lab disciplines (The MLT Program cannot guarantee the immediate availability of clinical sites). Start times may be as early as 4:30 am for some labs. The exact times of starting and ending each shift may vary and may change depending on the clinical site the specific section of the laboratory. In addition, weekly participations in an on-line seminar is required. There are no evening hours available.

7. Emergency Closures and Inclement Weather

When determining a closure the College will utilize the [Emergency Closing Procedure](#).

Students are not permitted to attend Clinical practice rotations while the College is closed

APPENDICES

Appendix I – Glossary of College and Program Terminology

Academic Behavior: refers to the standards that are expected for students to successfully complete coursework designated for their specific program of study, degree, and/or certificate.

Appeal Panel: refers to an approved body of individuals designated to review and make a determination on a decision that the student found unfavorable.

Closing: refers to the closure of the College or a specific campus or campuses for a designated reason (e.g. weather, natural disaster, utility outage, etc.). [Emergency Closing](#). *See program handbook for closing guidance for students at clinical/experiential learning/practicum sites.

Code: refers to the Student Conduct Code (3354: 1-30-03.5) and Student Judicial System (3354:-1-30-03.6) and identifies prohibited conduct and clarifies when the code applies to student behavior.

Complaint: refers a matter that the complainant believes requires institutional attention. Select the appropriate category here [Student Complaints, Concerns and Compliments](#).

Conduct: refers to student behaviors as it relates to prohibited actions as described in the Student Code of Conduct and related College Policies and Procedures. Student Code of Conduct can be found [Student Conduct Code and Student Judicial System](#)

Contractor/Vendor: refers to any individual or entity that has been contracted/retained to provide a service to the College.

Credit Course: refers to coursework that awards academic credit towards a degree and/or certificate.

Disciplinary Action: refers to corrective remedies imposed as a result of findings and recommendations from a program conduct meeting, level one hearing, and/or program professional conduct committee review.

Dismissal, College: refers to separation of the student from the College for a definite period of time. Conditions for readmission are outlined in the Student Code of Conduct sanction descriptions.

Dismissal, Programmatic: refers to separation of the student from a specific academic program. Conditions for readmission are specific to each program.

Ethics: refers to generally accepted professional standards of behavior as documented in the Codes of Conduct, Professional Ethical Standards, etc. of external professional organizations, licensure boards, etc.

Expulsion: refers to permanent separation of the student from all College locations, events and activities. An expulsion is denoted on a student's permanent transcript.

Faculty: refers to any permanent College employee assigned full-time to instruct credit course(s).

Grade Dispute: refers to a challenge to a recorded grade (final grades only — does not apply to individual assignments or midterm grades), and must be filed by a student to the Academic Affairs Office at the campus to which the course was associated no later than sixty (60) days after the disputed grade is recorded. Link: [Student Complaints, Concerns and Compliments](#).

Grievance: refers specifically to the ADA/Section 504 Grievance Procedure as outlined in the Student Handbook and available here: [Student Complaints, Concerns and Compliments](#).

Guidelines: refers to operating principles specific to a College program or department.

Instructor/Adjunct Faculty: refers to any individual assigned to instruct a credit/non-credit course, workshop, training seminar, summer camp, etc.

Lecturer: refers to a full time instructor with a specific term related contract who has all of the duties and responsibilities of a full time faculty member at the college.

Non-Credit Course: refers to coursework that does not award academic credit towards a degree and/or certificate.

Peer Panel: refers to a body of individuals consisting of faculty in a specific discipline who evaluate a student's specific request regarding a disputed grade.

Policy: refers to documented operating principles for the College as approved by the Board of Trustees.

Policy and Procedure: Policies and procedures act as the operating principles for Cuyahoga Community College. All official College policies must be approved by the College's Board of Trustees and all official procedures must be reviewed and approved by the Office of Legal Services prior to the effective date.

Preceptor: "Internal" / "External"

- Internal preceptor refers to an employee of Cuyahoga Community College who works with students in matters related to experiential learning.
- External preceptor refers to an employee of a clinical or experiential site who is not an employee of Cuyahoga Community College. External preceptors supervise student experiential learning and often provide feedback and assessments of the student to the program.

Probation, College (Academic): refers to a status that follows after a student is not performing at a successful level. The College's Academic Probation policy is found here: [Procedure on Academic Status](#)

Probation, College (Behavioral): refers to a written reprimand for a designated period of time and includes the probability of more severe disciplinary action if the student violates any College rules during the probationary period. College Behavioral Probation is found here [Student Conduct Code and Student Judicial System](#)

Probation, Programmatic: refers to a student being placed on probation as a result of a corrective action panel specific to a program.

Procedure: refers to documented standard practices of how a board-approved policy is carried out.

Professional Conduct Committee: refers to a committee established to review a student's academic performance and/or professional behavior at the programmatic level and may make appropriate recommendations pertinent to any eligible behavioral modification and/or remedial actions.

Professionalism and Professional Conduct: refers to behavioral expectations and guidelines set forth in programmatic, clinical, experiential and professional associations and organizational guidelines. These expectations and guidelines may appear in various forms such as a code of ethics, clinical facility guidebooks, and /or practicum/internship expectations, etc. These expectations and guidelines are in addition to the College's official policies and procedures.

Protocols: refer to step-by-step processes specific to a College program or department.

Readmission: refers to the delineated process for the reinstatement of a student subsequent to a period of separation from the College and/or a College program.

Reinstatement: refers to the process by which a student returns to good standing at the College or in a specific academic program after a period of probation/suspension/dismissal.

Remediation: refers to a program-specific process of improving student performance. Remedial

actions are not disciplinary actions.

Responsible Employee: refers to any individual required to take action based on reportable misconduct. All College employees have an obligation to adhere to the reporting requirements prescribed in applicable laws, regulations and College mandates.

Sanction: refers to any corrective action taken as a result of a student behavioral decision.

Staff Member: refers to any employee (part time/full time) of Cuyahoga Community College in a non-instructional role who performs duties as assigned.

Standards: refers to guidelines established by accreditation and approving bodies (e.g. state governing bodies) that a program must adhere to in order to maintain status.

Student: refers to anyone enrolled in a course of study at the College whether in a credit or non-credit course, workshop, training seminar, summer camp, etc. Applicants may also be considered 'students' under certain delineated circumstances

Suspension: refers to a temporary separation from the College or a specific academic program for a defined period of time as results of academic or behavioral issues. Eligibility for readmission may be contingent upon satisfactory or specific condition imposed at the time of suspension.

Withdrawal: refers to the process through which a student withdraws or is removed from coursework.

Appendix II – Student Incident Reporting

<https://www.tri-c.edu/administrative-departments/business-continuity/documents/incident-report-student.pdf>

Appendix III – Handbook Acknowledgement Form

I acknowledge I have received, read, and understand the contents of the student handbook for the [\[MLT Program\]](#). By signing this document, I affirm that I understand and agree to adhere to the contents of the program handbook.

In addition to acknowledging and affirming the statements above, by signing this document I also acknowledge and accept that the College and the program reserve the right to revise the above-referenced handbook, documentation, and guidance at any time without notice. I also understand and accept that certain information, including but not limited to student directory information, immunization records, and background check results may be disclosed in the course of my enrollment in accordance with applicable laws, regulations, and College policies and procedures.

Name (please print): _____

Signature: _____

Date: _____

Student # _____

Additional Content to be Included

The MLT Program requires students to wear PPE and follow safety guidelines while on campus MLT labs and during their clinical rotation. The Program provides students with information about lab safety, blood borne diseases, how to use personal protective equipment, and procedures to follow in case of an accidental needle stick and when an exposure incident occurs on campus or during the directed practice rotation