



MEDICAL LABORATORY SCIENCE

PROGRAM HANDBOOK

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WELCOME

Welcome to the Medical Laboratory Science (MLS) program at Thomas University! The MLS Program Handbook has been developed to assist you with your education. It is important to read and become familiar with the information presented in this handbook. Please refer to this as a main source of information regarding operational policies and procedures of the program.

Medical Laboratory Science courses utilize Canvas, Thomas University's learning management system. This program is used to deliver most of the lectures (recorded), messages, assignments, quizzes, and instructional materials. Once accepted, you will receive important information regarding your access to Canvas and your student accounts.

This program handbook does not constitute a contract between Thomas University and its students, applicants for admission, or with any other person. The MLS program faculty reserves the right to change, without notice, any statements in this handbook. Information on changes will be available to students in a reasonable and timely manner by the MLS Program Director. Although the MLS program faculty members have made every reasonable effort to attain factual accuracy in this handbook, no responsibility is assumed for editorial, clerical, or printed errors or mistakes. The MLS program faculty have attempted to present information that, at the time of preparation for publishing, most accurately describes the program policies. If there is a conflict between the MLS Program Handbook and the University's Student Handbook or University Catalog regarding university issues, the University Handbook and Catalog shall prevail.

Completion of the MLS program at Thomas University does not guarantee employment for graduates. However, successful completion of the MLS program and the competencies therein will make the student eligible to sit for several certification exams and be competitive in the current job market. Graduation from the program is not contingent upon passing an external certification exam.

FACULTY AND STAFF CONTACT INFORMATION

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ACCREDITATION

Thomas University's Medical Laboratory Science programs are accredited by the National Accrediting Agency for Clinical Laboratory Services (NAACLS). Contact information for NAACLS. <https://naacls.org/>

National Accrediting Agency for Clinical Laboratory Sciences
5600 N. River Rd. Suite 720
Rosemont, IL 60018-5119
773-714-8880

Thomas University is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award associate, baccalaureate, master's, and education specialist degrees. Contact information for SACSCOC. <https://sacscoc.org/>

Southern Association of Colleges and Schools Commission on Colleges
1866 Southern Lane
Decatur, GA 30033
404-679- 4500

DISABILITIES AND NON-DISCRIMINATION POLICY

Thomas University is committed to the requirements of making all programs, services, and facilities accessible to and usable by individuals with disabilities in order for students to obtain maximum benefit from their educational experience. The Director of Disability Services is available to advise students with disabilities and may also act as an advocate and liaison with faculty, staff, and local agencies. Students who identify themselves and provide documentation may be eligible for academic accommodations and support

services as appropriate. Information is available online on our website or through Canvas in the ADAConnect Office of Disability Services.

Thomas University is an Equal Opportunity University open to any qualified individual without regard to race, religion, sex, age, color, national or ethnic origin, or disability. Pursuant to all applicable federal anti-discrimination laws and regulations, Thomas University does not discriminate against any of the protected categories of individuals in the administration of its policies, programs or activities. This non-discriminatory policy includes admission policies, scholarship and loan programs, employment practices, and athletic and other school-administered programs.

SUPPORT OF INSITUTIONAL MISSION

The Thomas University MLS program is a program of study compatible with the mission and policies of Thomas University and encourages each medical laboratory science student to benefit and contribute as a partner in the economic development and stability of their communities.

DESCRIPTION OF THE MLS PROFESSION

Medical laboratory science is a profession dedicated to the prevention, diagnosis, and treatment of disease. It combines the challenges of medicine, the basic sciences of biology and chemistry, and the clinical sciences into a rewarding professional career. The major clinical sciences within medical laboratory science are medical microbiology, clinical chemistry, hematology and coagulation, and immunohematology.

The medical laboratory scientist is qualified by academic and applied science education to provide service and research in clinical laboratory science and related areas in rapidly changing and dynamic healthcare delivery systems. Medical laboratory scientists perform, develop, evaluate, correlate and assure accuracy and validity of laboratory information; direct and supervise clinical laboratory resources and operations; and collaborate in the diagnosis and treatment of patients. The medical laboratory scientist has diverse and multi-level functions in the principles, methodologies and performance of assays; problem-solving; troubleshooting techniques; interpretation and evaluation of clinical procedures and results; statistical approaches to data evaluation; principles and practices of quality assurance/quality improvement; and continuous assessment of laboratory services for all major areas practiced in the contemporary clinical laboratory. Medical laboratory scientists possess the skills necessary for financial, operations, marketing, and human resource management of the clinical laboratory.

Medical laboratory scientists practice independently and collaboratively, being responsible for their own actions, as defined by the profession. They have the requisite knowledge and skills to educate laboratory professionals, other health care professionals, and others in laboratory practice as well as the public.

The ability to relate to people, a capacity for calm and reasoned judgment, and a demonstration of commitment to the patient are essential qualities. Communication skills extend to consultative interactions with members of the healthcare team, external relations, customer service and patient education.

Medical laboratory scientists demonstrate ethical and moral attitudes and principles that are necessary for gaining and maintaining the confidence of patients, professional associates, and the community

The Bachelor of Science degree in MLS includes courses in basic sciences, management, research, medical sciences, and off-campus clinical experiences in a variety of hospitals. Knowledge gained through these courses, as well as the hands-on laboratory activities experienced by students; give them the competence needed to gain employment upon graduation. Graduates are eligible for national certification examinations.

The MLS major also functions as a pre-medical curriculum for those interested in medical school and provides a basis for graduate study in MLS or related areas such as clinical chemistry, immunology, molecular biology, toxicology, forensic sciences, management, or MLS education.

MLS PROGRAM MISSION AND PHILOSOPHY

MISSION

The mission of the Thomas University Medical Laboratory Science program is to produce competent and professional laboratory scientists through rigorous didactic and technical coursework.

PHILOSOPHY

The MLS program fosters medical and scientific endeavor and promotes the concept of change as related technology evolves. We believe that quality education is the foundation of quality healthcare and nurture the spirit of involvement in lifelong professional learning. The program will strive to ensure MLS graduates employ expertise and high standards of ethical conduct to guide patient care and medical decisions throughout various healthcare settings in their communities.

Along with the assistance of its clinical affiliate laboratories, the MLS program is committed to providing quality didactic and clinical instruction, which encompasses the cognitive, psychomotor, and affective domains of learning to prepare its graduates to work upon career entry as competent medical laboratory scientists in health care facilities. The program is committed to meeting the employment needs of medical laboratories and to providing quality continuing education to laboratory professionals in our service area and beyond.

PROGRAM GOALS

The purpose of the Thomas University MLS program is to provide educational opportunities to individuals that will enable them to obtain the knowledge, skills,

abilities, and attitudes necessary to succeed as medical laboratory scientists. The program strives to achieve and produce graduates that will:

1. Demonstrate the profession's code of ethics and consistently act within those standards during interactions with fellow classmates and working professionals in the clinical laboratory setting.
2. Demonstrate knowledge of theory underlying laboratory testing using analytical, interpretive, and problem solving skills.
3. Achieve entry-level competencies of a medical laboratory scientist by testing biological samples using current technology to generate accurate, quality assured laboratory results.
4. Gain relevant professional employment or continue their education within one year of graduation from the program.
5. Utilize critical thinking skills to assess and problem-solve laboratory data as applied to patient diagnoses.
6. Prepare students for the national certification examination for the profession.
7. Prepare graduates to function as competent practitioners in the medical laboratory science field dedicated to maintaining high ideals and standards as a member of the healthcare team.

Important attributes for success of program graduates are analytical thinking, problem solving, and the ability to apply technology to the work requirement. Medical laboratory science is a dynamic profession; therefore, careful attention to current curriculum and up-to-date instructional equipment is required.

MLS ENTRY LEVEL COMPETENCIES

The following is from the “*National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) Standards for Accredited and Approved Programs*” (rev 5/2021)

At entry level, the medical laboratory scientist will possess the entry level competencies necessary *to perform* the full range of clinical laboratory tests in areas such as Clinical Chemistry, Hematology/Hemostasis, Immunology, Immunohematology/Transfusion medicine, Microbiology, Urine and Body Fluid Analysis and Laboratory Operations, and other emerging diagnostics, and will play a role in the development and evaluation of test systems and interpretive algorithms.

The medical laboratory scientist will have diverse responsibilities in areas of analysis and clinical decision-making, regulatory compliance with applicable regulations, education, and quality assurance/performance improvement wherever laboratory testing is researched, developed or performed.

At entry level, the medical laboratory scientist will have the following basic knowledge and skills in:

- A. Application of safety and governmental regulations and standards as applied to clinical laboratory science;
- B. Principles and practices of professional conduct and the significance of continuing professional development;
- C. Communications sufficient to serve the needs of patients, the public and members of the health care team;
- D. Principles and practices of administration and supervision as applied to clinical laboratory science;
- E. Educational methodologies and terminology sufficient to train/educate users and providers of laboratory services;
- F. Principles and practices of clinical study design, implementation and dissemination of results.

ESSENTIAL FUNCTIONS OF A MEDICAL LABORATORY SCIENTIST

Students in the MLS program must have the capability to meet the established technical and essential functions. These essential functions are required to ensure that students are able to participate and potentially be successful in all aspects of the program. Successful program completion and subsequent employment in the field demands that students be able to meet the following requirements with or without reasonable accommodations.

- 1. Critical Thinking: Critical thinking ability sufficient for clinical judgment. Examples include: identify cause and effect relationships in clinical situations, evaluate patient or instrument responses; synthesize data; draw sound conclusions.
- 2. Interpersonal Skills: Interpersonal abilities sufficient to interact with individuals, families, and groups from a variety of social, emotional, cultural, and intellectual backgrounds. Examples include: Establish rapport with patients and colleagues. Use therapeutic communication (attending, clarifying, coaching, facilitating, teaching). Function (consult, negotiate, share) as part of a team.
- 3. Communication Ability: Communication abilities sufficient for effective interaction with others in spoken and written English. Examples include: Explain procedures; listen attentively; communicate problems verbally and/or written; document and interpret instructions.
- 4. Physical Endurance: Remain continuously on task for several hours while standing, sitting, moving, lifting, and/or bending. Examples include: Stand, sit, and/or walk for extensive periods of time while operating instrumentation in several departments.
- 5. Mobility: Physical abilities sufficient to move from area to area and maneuver in small spaces; full range of motion; manual and finger dexterity; and hand-eye coordination. Examples include: Operating more than one instrument at a time; trouble-shooting instrumentation.
- 6. Motor Skills: Gross and fine motor abilities sufficient to provide safe and effective patient care and operate equipment. Examples include: Calibrate and use equipment; lift and operate equipment with necessary strength and dexterity; both hands are needed for gripping and doing precision work.

7. Adequate Height: Ability to reach overhead equipment, reagents and supplies; ability to operate all lab equipment. Examples include: Taking reagent inventory; reading and changing temperature charts; turning wall-mounted monitors and gauges on and off.
8. Hearing ability: Auditory ability sufficient to monitor and assess health needs. Examples include: Hear monitor alarms, emergency signals, cries for help.
9. Visual ability: Normal or corrected visual ability sufficient for specimen and equipment observation and assessment; ability to discriminate between subtle changes in density (black to gray) of a color in low light. Examples include: Observe sample color, consistency; read thermometers, charts, computer screens, digital print-outs, labels and gauges; interpret subtle color differences in diagnostic laboratory test kits, on stained microscopic slides, microbiology culture plates, and when using lab instruments.
10. Tactile ability: Tactile ability sufficient for physical assessment. Examples include: Performing successful venipunctures.
11. Olfactory ability: Olfactory senses (smell) sufficient for maintaining environmental and patient safety. Examples include: Distinguish smells which are contributory to assessing patient samples and maintaining the patient's health status or environmental safety (fire).
12. Professional attitude and demeanor: Ability to present professional appearance and implement measures to maintain own physical and mental health, and emotional stability. Examples include: Work under stressful conditions and irregular hours; be exposed to communicable diseases and contaminated body fluids; react calmly in emergency situations; demonstrate flexibility; show concern for others.

PROGRAM STUDENT LEARNING OUTCOMES

Upon successful completion of the MLS program, graduates will be able to:

1. Demonstrate ethical and professional conduct and interpersonal communication skills with patients, the public, and all members of the healthcare team.
2. Perform laboratory procedures and demonstrate entry-level competencies of a medical laboratory scientist according to established protocols in an atmosphere that fosters interest in and enthusiasm for the profession.
3. Relate laboratory findings to common disease processes.
4. Complete the MLS program and pass the national ASCP certification exam within 1 year of graduation.

PROGRAM INFORMATION

PROGRAM ADMISSION

Students must first be accepted to Thomas University and submit all documents and information required by the admissions department. Qualified applicants will then be sent to the MLS Program Director for program acceptance.

ROUTE A: MLT TO MLS 2+2 ONLINE PROGRAM

This program is a bridge program designed for the clinical/medical laboratory technician. A student must possess an Associate of Applied Science or an Associate of Science Degree from a NAACLS accredited MLT program and national MLT certification. Students are accepted each semester, to begin a structured curriculum that includes online courses and a competency based clinical experience. These courses will provide the skills needed to meet entry level competence as a Medical Laboratory Scientist. Students graduating with the B.S. degree from Thomas University in MLS are eligible to sit for the national certification examinations in Medical Laboratory Science. Successful completion of the exam will lead to certification as an MLS.

Consideration for admission into the Route A MLS Program is based on the following criteria:

1. Associate Degree from a NAACLS accredited CLT/MLT (Clinical/Medical Laboratory Technology) program.*
 - Documentation of NAACLS accreditation status of previous CLT/MLT program.
2. Transfer GPA of 2.75 or higher.
3. National MLT Certification.**
4. On-going employment in a medical laboratory that meets appropriate testing requirements and is willing to serve as a clinical site. **We do not locate clinical sites for the 2+2 students.**

Notes: *If a student did not graduate from a NAACLS accredited program with an A.A. or A.A.S. degree in MLT/CLT then they MUST apply as a Route B campus based student. Classes may still be completed online if other requirements are met.

**Conditional status may be granted while awaiting employment and/or taking the MLT certification exam for a max of two semesters. After two semesters, students will be diverted to the biomedical laboratory science program if interested in continuing their education.

Once accepted, students are required to submit the following documents prior to registering for class:

1. A Statement of Support from their employer or a qualified laboratory.
2. Clinical fact sheets for the laboratory where they are employed and intend to complete their clinical practicum.
3. Drug Screen and Background Check Waiver if currently employed in a qualified laboratory. If not currently employed, a drug screen and background check must be completed.
4. The signature page for this handbook.

Accepted students and their advisor will select a course progression. The MLS Program Director reserves the right to limit the amount of MLS courses taken per semester in conjunction with individual student course success history, the amount of core studies remaining, and previous academic performance.

Upon acceptance into the program, students will be required to attend MLS350 Orientation to Online Medical Laboratory Science in which they must submit:

1. Physical exam documentation from within the last 6 months
2. Immunization record to include Hepatitis B series or deferral form and verification of a flu and COVID vaccine.
3. Drug Screen (Program director will notify you of the date)
4. Criminal Background Check
5. Proof of personal health insurance and liability insurance.
6. Signed FERPA form if applicable.

Note: No student will be accepted to the MLS program with ANY felony or misdemeanor that resulted from drugs, alcohol, or violence. The ability to obtain clinical placement or future employment in any medical field is dramatically decreased and nearly impossible with these convictions. Any “pending” case will also limit your competitive admission process for acceptance

Only complete application files will be considered. Formally accepted MLS candidates will receive an acceptance letter from the MLS program director. Once you receive this letter, you should:

1. Confirm your acceptance in the MLS program.
2. Contact the MLS program advisor to determine the curriculum plan for program completion.

CLINICAL TRAINING

Clinical training consists of clinical rotations through the different departments of clinical laboratories. New affiliates are added each year depending on the location of students (2+2 only). Clinical sites are limited and sites will be awarded at the discretion of the Program Director and Clinical Coordinator based upon GPA, student rank in the cohort, and professionalism. The program director or clinical coordinator will initiate the formal contract process and provide information on what is expected of the clinical site. Students are not choose their sites nor are they allowed to begin this process and any attempts to do so will result in dismissal from the program or rejection of program acceptance. Students may be placed in more than one clinical site in order to meet the required competencies and for successful completion of the internship. Students must comply and submit any additional documentation or testing required by their clinical site. Complete clinical training rules and polices can be found in the clinical handbook.

In the event that clinicals cannot be completed at the assigned site due to no fault of the student, the Program Director and/or Clinical Coordinator may locate an alternate site or provide equivalent online assignments to demonstrate competency based upon the established checkoffs. In the case of a non-renewal or termination of an affiliation agreement, students already enrolled in the internship at the site that does not renew or terminate will be placed at another clinical site and/or utilize online modules to complete the required competencies. If a student is removed from a clinical internship due to unacceptable performance of any kind, he/she will not be guaranteed placement at another clinical site.

ROUTE A: 2+2 PROGRAM

Most often, 2+2 students complete their clinical training at their place of employment. If the laboratory where the student is employed as an MLT is not qualified to serve as a

clinical site, the student must locate an alternate site and provide that information to the program director and clinical coordinator.

The MLS 2+2 Program at Thomas University is a NAACLS accredited program that does not require a set minimum hours of training. These clinicals are competency based and completed during the course MLS 495 Advanced Clinical Practicum. Students will be enrolled in that course upon completion of the major didactic coursework. No practicum will be allowed until all theory/didactic portions are passed with a 70% or higher for the following courses: MLS 405, MLS 411, MLS 414, MLS 421, MLS 431, MLS 441, and MLS 451.

Preceptors may judge the initial experience of students and begin training at an appropriate point. Preceptors may also determine that additional time is needed for student to demonstrate competence. Clinical sites for the 2+2 students will determine competence and complete professional evaluations in all required areas. Students must meet the hourly requirements of the clinical site if applicable.

A schedule will be worked out between the Clinical Coordinator, and the clinical student coordinator. Students are expected to attend all designated sessions scheduled. A 40 hour work week is expected. Absence from the internship exceeding 2 days (including tardy, late, request to leave early etc.) will result in either dismissal from the clinical site and/or program.

Clinical hours are recorded using the Trajecsyst (TRS) system. If the student cannot attend the scheduled times, the clinical instructor and clinical coordinator must be informed of the absence 90 minutes prior to the beginning of the scheduled shift. It is the responsibility of the student to contact the appropriate individual(s) at the university and clinical site. Any tardiness not reported to the clinical site and the Clinical Coordinator will not count toward the student's total clinical hours. Students must allow TRS to mark their location or the time does not count.

Any student that fails to be present for the schedule that was agreed upon and is dismissed from the clinical site will be immediately dismissed from the program. Students are not allowed to "re-negotiate" the schedule AT ANY TIME. Any report from a preceptor regarding schedule changes or special alteration of schedule requests will be dismissed.

Students are to maintain an agreeable and professional attitude at all times. If a student's behavior is unprofessional and disruptive to the flow of work in the clinical laboratory, the clinical supervisor will first counsel the student. If behavior continues following reasonable warning, the supervisor may ask that the student leave for the day, and must immediately notify the MLS Program Director and Clinical Coordinator. If a student is dismissed from a clinical site due to unprofessional behavior, or excessive absences/tardiness, the MLS Program Director will withdraw the student from the MLS Program and award an "F" for the clinical rotation.

CLINICAL SITES

***This list is not inclusive and new sites are constantly being added.**

Archbold Medical Center and affiliates
Atrium Health--Floyd Medical Center
Centrastate Healthcare System
Floyd Health System
Jefferson Health System
Northside Hospital System

Quest Diagnostics

Redmond Regional Medical Center
Schreck Medical Center
Urology of Indiana
Wellstar Health System

SERVICE WORK POLICY

Students are encouraged to develop confidence and independent work skills in every phase of their training. With qualified supervision and guidance from the clinical instructor employed by the clinical affiliate, students who have satisfied competency requirements for various test procedures can perform actual patient work; however, ALL student results must be verified before leaving the lab area by the clinical instructor.

The affiliated laboratory may not, under any circumstances, use the student to perform work (service work) in lieu of a regular employee. This would violate NAACLS accreditation standards for the Thomas University MLS Program. Service work by students in clinical settings outside of regular academic hours must be noncompulsory, paid, supervised on site, and subject to employee regulations.

INSURANCE AND INJURY

Professional liability insurance is needed to protect you as a student training in the hospital setting. You are required to purchase liability insurance and send proof of coverage to the Clinical Coordinator before you enroll in the clinical course.

Personal medical insurance is required for program admission and if a student is injured in at clinical site the student is personally responsible for any costs incurred as a result of that injury. If a needlestick or biological exposure occurs, the student is to follow the guidelines of the clinical site and notify the Program Director and Clinical Coordinator immediately.

ACADEMIC INFORMATION

SCHOLASTIC REQUIREMENT

ROUTE A: 2+2 PROGRAM CURRICULUM

All MLS Majors are required to complete the following Thomas University General Education Courses:

ENG 101 Composition I (WI) 3cr

ENG 102 Composition II (WI) 3cr

MTH 120 Mathematical Modeling or higher 3cr

MTH 250 Introduction to Statistics 3cr

Creative Comprehension 3cr
Social, Behavioral and Philosophical Inquiry 3cr
BIO 101 Principles of Biology I or equivalent 3/4cr
CHM 101 General Chemistry I 4cr
CHM 102 General Chemistry II 4cr
CHM 107 Survey of Organic Chemistry 4cr Science
Electives (Choose two)
BIO 261 Human Anatomy and Physiology I 4cr
BIO 262 Human Anatomy and Physiology II 4cr
BIO 310 Cell and Molecular Biology 3cr
BIO 312 Genetics 3cr
BIO 409 Pathophysiology 3cr

Articulation/Advanced Placement for completion of MLT/CLT program: (24 Credit Hours)
Required Medical Lab Science Courses: (38 Credit Hours)

MLS 405 Parasitology, Mycology and Virology 3cr
MLS 411 Urinalysis and Body Fluids II 3cr
MLS 414 Clinical Immunology & Molecular Diagnosis II 3cr
MLS 421 Clinical Microbiology II 4cr
MLS 431 Hematology and Coagulation II 4cr
MLS 441 Clinical Immunohematology II 4cr
MLS 451 Clinical Chemistry II 4cr
MLS 452 Research Methods & Project 3cr **or** RSC 300 Research Methods 3cr

MLS 460 Senior Seminar 3cr
MLS 470 Lab Management & Supervision 3cr
MLS 495 Advanced Clinical Practicum 4cr

Total Credit Hours General Ed. Core 36-38
Total Credit Hours Program Requirements 38
Total Articulation Credit Hours 24
Total Credit Hours for Degree 120-122

MLS GRADING POLICY

The current grading scale at

TU:

A.= 90 - 100 Outstanding

B. = 80 - 89.9 Above average work

C = 70 - 79.9 Average work

D = 60 - 69.9 Marginal performance

F = Below 60 Failure to meet minimum requirements

See the College Catalog for explanation of grades of W, WA,V, K, I, and E.

Final course grades are letter grades. Final grades are available online through the student's TU Hawklink account on the school web page. Grades are not provided via the telephone or e-mail.

SCHOLASTIC REQUIREMENT

MLS students must attain a minimum grade of "C" (2.0) throughout the program. A student receiving a grade of "D" (1.0) or lower in a course may be allowed to retake that course the next time it is offered. Most MLS courses are offered once a year. Therefore, a grade of "D" would delay graduation by at least one year provided a "C" or better is achieved the second time. It is not possible to graduate with a grade of "D" or lower in any course applied toward the MLS program. If a student earns a grade less than a "C" in two MLS courses while in the program, he/she will not be allowed to continue in the program. The student may formally request readmission, but will only be granted readmission if there is proof that the reason for poor performance has been rectified, and is also based upon available space in the program cohort. A student that is readmitted and fails to maintain the minimum GPA and is dismissed from the program a second time will not be readmitted to the MLS program.

TESTING POLICY

Online MLS courses require that all assessments be proctored by Honorlock, an online proctoring service. Tests are available for students only during the dates posted on the syllabus and set by the university. Refer to your individual syllabi for detailed instructions. Failure to complete the proctored exams with a grade of 70% or better will result in failure of the course.

WITHDRAWAL, READMISSION, AND APPEAL POLICIES

Withdrawal

A "W" will be assigned by the Registrar to any student who formally withdraws from any class after the last day of the drop/add period, and prior to the last day to drop a course without academic penalty. Students may also be administratively withdrawn (WA) from a course by the course instructor for poor or non-performance.

Grounds for withdrawal from the program include:

- A grade of “D” or below in two MLS courses
- A grade of “D” or below in ANY clinical rotations
- A Professional Evaluation Grade of 2.0 or below
- Unsafe student health practices
- Unacceptable behavior in class or in clinicals

Note: Students who leave or are withdrawn from the program must initiate and complete an Exit Interview with the MLS Program Director.

Readmission

A student who is withdrawn for any of the reasons mentioned above may request to be considered for readmission by submitting a typed letter to the Program Director; however, readmission is not automatic. Students may be considered for readmission to the program one time only, under the following conditions:

- Space in the class is available.
- Student meets the admission requirements effective for the semester for which they are readmitted.
- Student meets the specific conditions set by a committee comprised of the MLS Program Director, Division Chair, and the V.P of Academic Affairs. In some cases, students may be required to re-take or audit previously completed courses.
- Students who are withdrawn due to poor academic performance must provide sufficient proof that reasons for poor performance have been rectified.
- Students who withdraw or are withdrawn because of unacceptable professional behavior issues must provide documentation that corrective actions have been completed and an action plan will be required.

If two semesters or more have lapsed since the student was withdrawn from the program, the student must pass a comprehensive exam in the subjects already completed to measure whether the student has retained the knowledge gained from that course. The student must earn a minimum score of 70% on the exams.

Note: If more than three years have elapsed since withdrawal from the program, the student must reapply for admission as a new student and repeat all professional course work. The student must complete required MLS courses within three years. Three years begins with completion of the first MLS class taken.

Appeals

Any matter of appeal should follow the line of communication as follows:

1. Address the concern with the professor directly.
2. If no resolution, the student may forward your original communication (via email) to the MLS Program Director.
3. If the concern is with the MLS Program Director, the student may contact the Division Chair.
4. If no resolution, please see the Thomas University Catalog for the Appeals process.

VIOLATIONS

All students are considered bound by the Honor Code upon admittance to the University. Violations of the Honor Code fall mainly within the categories of cheating, plagiarism, and lying related to any academic matter. Some examples of these categories of violations are presented below, but are by no means an exhaustive list.

1. Cheating – the unauthorized usage of notes, books or other materials on a test, quiz, or examination; copying ideas or facts from another student's writing, whether online or in a face-to-face class; giving or receiving any pertinent information during testing, or giving or receiving, without authorization, test questions or other related information prior to the test; submitting a paper written for another class without specific permission of the instructor; giving or receiving unauthorized assistance on a paper, project or other assignment; distributing via the internet or other means (whether or not for compensation) any instructor-provided lecture notes or other class materials without the written consent of the instructor; sharing access to online course materials, quizzes, exams, or other course materials without the written consent of the instructor.
2. Plagiarism – the use of facts, ideas, phrases, charts, etc. from any source without giving credit for the information. In a paper, report, or similar graded submission, all un-acknowledged material is assumed to be the original work of the writer. Ideas and information from another source, whether paraphrased or a direct quotation, must be acknowledged using a standard documentation format such as APA. The downloading of papers from the Internet and submission of the material as work done by the student is one of the most blatant examples of plagiarism. Individual professors are responsible for explaining their referencing policies in each class.
3. Presenting false information or lying – includes consciously furnishing false information to other students, faculty members, or administrators with the intent to mislead.
4. Aiding and abetting a violation of the Honor Code – includes intentionally: (a) providing information or other assistance to another person with knowledge that such aide could be used to commit any of the violations noted above; or (b) providing false information in connection with any inquiry regarding academic integrity. Any student who is found to commit any violation of academic integrity will at a minimum receive a grade of "F" on the assignment. Multiple or grievous violations will receive an "F" for the course.

GRADUATION

Thomas University confers degrees each semester, upon the recommendation of the faculty, to students who have successfully completed all course requirements. All qualified students are invited and expected to participate in graduation ceremony each spring semester. All students must have a minimum GPA of 2.0 in order to be eligible for recommendation for graduation. At least 25% of all hours earned toward any degree must have been earned at Thomas University. Students must take all MLS courses at Thomas University to award the B.S. in Medical Laboratory Science.

Students who are awarded a bachelor's degree may earn the distinction of graduating summa cum laude (4.0 GPA), magna cum laude (3.75-3.99 GPA), or cum laude (3.5-3.74 GPA). GPAs for graduation honors are calculated using all hours attempted at all institutions attended.

Graduation Procedure

Students who expect to graduate must:

1. Complete the Intent to Graduate application and submit it to their advisor for evaluation by the appropriate date. The advisor will then forward the signed application to the Registrar. The deadlines for turning in this form to the Registrar's Office are October 1 (spring semester graduation), December 1 (summer) or March 1 (fall semester). Students who graduate in the fall are eligible to participate in the commencement ceremony the following spring.
2. Complete an exit student questionnaire.
3. Complete the MLS Graduate Exit Survey.
4. Clear all accounts and pay graduation fees.

PROGRAM CLOSURE TEACH OUT PLAN

In the event that the MLS program unexpectedly closes due to a natural or unnatural disaster, the following steps will be taken. Intentional closure of the program will be communicated to all students immediately. In case of a disaster, the university will inform students of a plan for continuation of their education as soon as that information is available. One example of a possible resolutions may include transitioning on-campus students to an online learning environment to complete their courses. NAACLS will be notified and a teach out plan will be provided to them within 30 days of the official announcement of program closure.

Prospective students:

- In the case of permanent closure, students will be informed that the program will not take a new cohort due to program closure.
- In the case of a natural or unnatural disaster, the program will work with other laboratory science programs to continue education and training until training can resume at the university.
- Students will be counseled in applying to other local programs.
- Program closure information will be posted on the university website.

Current students:

- Students will be informed of program closure.
- In the case of a natural or unnatural disaster, the program will work with other laboratory science programs to continue education and training until training can resume at the university.
- In the event of a mandated permanent closure, currently enrolled students will be allowed to complete program.
- A university official will be designated to clear students applying for the certification exam.

DRESS CODE

MLS students will maintain a neat, groomed, and professional appearance at all times. Proper universal precautions will be taken when body fluids or potentially infectious material is handled, so that the student's patients, coworkers, and the general public's health is protected at all times.

CLASSROOM ATTIRE

Students must wear:

- Hunter Green scrubs to class meeting sessions and only approved t-shirts.
- Close toed leather shoes (no "Crocs" are allowed)
- Lab coats (disposable and are provided)
- Gloves (provided)
- Safety goggles and/or face shields (provided)

CLINICAL ATTIRE

The appropriate attire includes:

- Students must wear appropriate uniforms to all clinical assignments.
Scrub tops and bottoms are required. Thomas University requires HUNTER GREEN scrubs with the Thomas University logo.
- Closed-toe, clean, leather shoes.
- Fluid-proof lab coat, which meets OSHA specifications when working in the laboratory (provided by the facility).
- Eye protection must be worn when the potential for splash of infectious materials exists (provided by the facility).
- Gloves (provided by the facility).
- Student ID badge must be worn at ALL TIMES
- Hair should be clean at all times and must be placed up and pulled off the face and the shoulders. Hair is a source of cross contamination and must not interfere with the delivery of patient care. Ponytails must be controlled and not drop forward when giving patient care or operating laboratory equipment. Beards and mustaches should not appear in disarray. They should be clean and neatly groomed. Long hair secured in a "bun" must be neat and orderly.
- Makeup worn in moderation.
- Fingernails harbor microorganisms and must be kept reasonably short. No false/acrylic fingernails are allowed in the clinical area.

- A watch, wedding bands or simple rings, and simple earrings (not hanging) are permitted. No other jewelry or body ornamentation is permitted. This includes piercings! Conservative earrings in the lobes are allowed. Additional piercings are NOT allowed.
- Tattoos must be covered – if you have tattoos on the arms, neck, or other areas that could potentially be visible, you **MUST** wear undergarments (turtleneck, long sleeves etc.) to insure they are not exposed or visibly noted.
- Good personal hygiene is of the utmost importance when working with other people. Please consider the following:
 - Teeth and breath – brush and floss daily. Use a mouthwash as needed.
 - Perspiration and body odor – daily bathing and use of deodorant is recommended.
 - Perfume/cologne – **do not wear**. This is highly important to asthmatic and other respiratory distress patients and is often against hospital policy.
 - Do not chew gum, use tobacco products, vape, or apply makeup in the clinical setting.
 - Undergarments may not be visible through scrubs by pattern or design at any time.
- The student must meet any additional regulations of the clinical affiliate that are not covered in this handbook.

CONDUCT EXPECTATIONS

As a student in this profession, one of the most important responsibilities is in the area of personal conduct. The impression you make on the patients and others reflects not only upon yourself, but also on the department and the university. Unprofessional conduct will not be tolerated, and will result in dismissal from the program.

Any student under the influence of non-prescriptive drugs or alcohol in the classroom or clinical site will be dismissed from the program.

The university offers MLS students the opportunity to apply theory and laboratory testing at an MLS level under direct clinical supervision. In order to obtain a consistently high level of training in clinical laboratory science, with a positive impact on patient care, the following code of conduct should be maintained.

Professionalism is graded by the clinical preceptors using the Professional Evaluation Form, which can be found in the clinical handbook.

Recognizing that personal and professional conduct can impact the quality of health care delivery, MLS students agree to:

- Treat patients, classmates, instructors, and healthcare personnel with respect, care, and thoughtfulness.
- Demonstrate compassion and kindness toward colleagues and patients.
- Maintain honesty, initiative, enthusiasm, and adaptability in action and attitude.

- Safeguard patient information as confidential, and in adherence with state and federal laws and regulations.
- Perform duties in a dependable, accurate, precise, timely, and responsible manner.
- Function as a collaborative team member within the university and clinical laboratory setting.
- Communicate effectively and appropriately.
- Be cognizant of and adhere to channels of authority.
- Demonstrate physical and psychological stability under stress.
- Accept responsibility for own work and results.
- Display an appropriate level of confidence, while recognizing limitations.
- Maintain appropriate professional appearance and hygiene.
- Strive for increased efficiency and quality by using organizational skills.
- Prudently use laboratory resources.
- Continue to study, apply, and advance medical laboratory knowledge and skills and share such with my colleagues, other members of the healthcare community, and the public.

ASCLS CODE OF ETHICS

The Code of Ethics of the American Society for Clinical Laboratory Science sets forth the principles and standards by which Medical Laboratory Professionals and students admitted to professional education programs practice their profession.

I. DUTY TO THE PATIENT

Medical Laboratory Professionals' primary duty is to the patient, placing the welfare of the patient above their own needs and desires and ensuring that each patient receives the highest quality of care according to current standards of practice. High quality laboratory services are safe, effective, efficient, timely, equitable, and patient-centered. Medical Laboratory Professionals work with all patients and all patient samples without regard to disease state, ethnicity, race, religion, or sexual orientation. Medical Laboratory Professionals prevent and avoid conflicts of interest that undermine the best interests of patients.

Medical Laboratory Professionals are accountable for the quality and integrity of the laboratory services they provide. This obligation includes maintaining the highest level of individual competence as patient needs change, yet practicing within the limits of their level of practice.

Medical Laboratory Professionals exercise sound judgment in all aspects of laboratory services they provide. Furthermore, Medical Laboratory Professionals safeguard patients from others' incompetent or illegal practice through identification and appropriate reporting of instances where the integrity and high quality of laboratory services have been breached.

Medical Laboratory Professionals maintain strict confidentiality of patient information and test results. They safeguard the dignity and privacy of patients and provide accurate information to patients and other health care professionals. Medical Laboratory Professionals respect patients' rights to make decisions regarding their own medical care.

II. DUTY TO COLLEAGUES AND THE PROFESSION

Medical Laboratory Professionals uphold the dignity and respect of the profession and maintain a reputation of honesty, integrity, competence, and reliability. Medical Laboratory Professionals contribute to the advancement of the profession by improving and disseminating the body of knowledge, adopting scientific advances that benefit the patient, maintaining high standards of practice and education, and seeking fair socioeconomic working conditions for members of the profession.

Medical Laboratory Professionals accept the responsibility to establish the qualifications for entry to the profession, to implement those qualifications through participation in licensing and certification programs, to uphold those qualifications in hiring practices, and to recruit and educate students in accredited programs to achieve those qualifications.

Medical Laboratory Professionals establish cooperative, honest, and respectful working relationships within the clinical laboratory and with all members of the healthcare team with the primary objective of ensuring a high standard of care for the patients they serve.

III. DUTY TO SOCIETY

As practitioners of an autonomous profession, Medical Laboratory Professionals have the responsibility to contribute from their sphere of professional competence to the general well being of society. Medical Laboratory Professionals serve as patient advocates. They apply their expertise to improve patient healthcare outcomes by eliminating barriers to access to laboratory services and promoting equitable distribution of healthcare resources.

Medical Laboratory Professionals comply with relevant laws and regulations pertaining to the practice of Clinical Laboratory Science and actively seek, to change those laws and regulations that do not meet the high standards of care and practice.

PLEDGE TO THE PROFESSION

As a Medical Laboratory Professional, I pledge to uphold my duty to Patients, the Profession and Society by:

- Placing patients' welfare above my own needs and desires.
- Ensuring that each patient receives care that is safe, effective, efficient, timely, equitable and patient-centered.
- Maintaining the dignity and respect for my profession.
- Promoting the advancement of my profession.
- Ensuring collegial relationships within the clinical laboratory and with other patient care providers.

- Improving access to laboratory services.
- Promoting equitable distribution of healthcare resources.
- Complying with laws and regulations and protecting patients from others' incompetent or illegal practice
- Changing conditions where necessary to advance the best interests of patients.

SAFETY GUIDELINES

STANDARD PRECAUTIONS

With the implementation of the Occupational Safety and Health Administration's (OSHA) Universal Blood and Body Fluid Precautions and Blood- Borne Pathogens standards, the risk of transmission of infection of blood-borne illnesses has been minimized. All clinical affiliates are in strict compliance with OSHA's Standard Precautions guidelines. Since medical history and examination cannot reliably identify all patients infected with HIV, Hepatitis B or other blood borne pathogens. Standard Precautions should be consistently used for all patients, blood, and body fluids.

HAZARDOUS SUBSTANCES

Students should be aware that biological substances that may be potentially hazardous will be handled routinely in the course of clinical laboratory work. All reasonable safety precautions will be taken to ensure the safety of students. Students will be instructed on the University's Exposure Control Plan and each affiliate will instruct the students as to their specific Safety and Exposure Control Plan. The ultimate responsibility for following such procedures and complying with safety guidelines lies with the student. Potentially hazardous materials that will be handled include:

- Pathogenic microorganisms
- Human blood, urine, feces, and body fluids which may be possible sources of infectious diseases (i.e., hepatitis B virus, hepatitis C virus, HIV)
- Radioactive material
- Corrosive and hazardous chemicals

GENERAL RULES

The following are safety rules that must be followed during clinical rotations and in the laboratory classroom. Please refer to your clinical affiliate safety guidelines for any additional policies.

Personal Protective Equipment (PPE) must be used routinely to prevent skin and mucous membrane exposure.

Gloves

Fluid-proof gloves must be worn when working with laboratory specimens and reagents; when in direct contact with non-intact skin of patients; and when handling items or surfaces soiled with blood or body fluid. Gloves especially must be used when cuts or abrasions are apparent on the hands. Gloves should fit properly so as not to impede

dexterity. If allergic to certain gloves, please notify the supervisor of the department or your instructor.

Non-sterile gloves are used unless sterile gloves are indicated. Gloves should be changed when visibly soiled with blood/body fluids or if damaged. Gloves should not be washed or reused. Contaminated gloves are discarded in the biohazardous containers or as instructed by your clinical site. Hands should be immediately washed after gloves are removed.

Lab Coats

Fluid-proof, knee-length, long-sleeved lab coats must be worn while performing laboratory procedures. Clinical affiliates provide.

Face Protection

Students must wear face protection (mask, goggles, face shield, or work behind splash shields or a hood) when handling biological specimens or hazardous chemicals, including human blood and manufactured reagents made from human blood.

Hand Washing

Hand and other skin surfaces should be washed immediately and thoroughly (including under fingernails) if contaminated with blood and other body fluids. Hands must be washed after removing gloves, contact with blood or body fluids, and/or contact with equipment and work surfaces. Always wash hands before leaving any laboratory and before eating, drinking, or smoking.

Clean-Up and Disposal Procedures

A 1:10 dilution of household bleach or a medical grade disinfectant is always available for cleaning spills and work areas. If a spill occurs, wear gloves to clean up. Wipe most of the spill with absorbent paper towels and discard in biohazards waste container. Apply a generous amount of the disinfectant to the spill area, wipe with paper towel, and discard in biohazards container. When all laboratory work is completed for the day, clean the entire work area with approved provided disinfectant and discard in biohazards container. Biohazard bags and containers are marked with the universal biohazard symbol label. Biohazard bags are placed in puncture-resistant containers with lids.

Notes:

- Spill kits are available for large biohazard spills.
- Report any accident/spill to the instructor immediately.
- Microbiology plates for disposal are to be placed in the large bio hazardous containers with the bags tied shut until it is picked up by the biohazard waste management service.
- All sharp objects (needles, glass slides, glass test tubes, etc...) are to be placed in the red sharp containers.
- All contaminated non-sharp waste (bloody gauze, contaminated paper towels, etc.) should be placed in the biohazard bags.

- All non-contaminated waste (syringe wrappers, note paper etc...) should be placed in the regular trash. Do not place in the biohazard bags or containers.
 - No eating, drinking, smoking, chewing gum or applying makeup in the laboratory.
 - No pipetting by mouth.
 - Never recap, bend, or deliberately break or remove needles from syringes.
 - Use universal precautions when handling all blood, body fluids, and reagents. Aerosol Precautions should be taken when uncapping a specimen tube to avoid aerosol and exposure to mucous membranes of mouth, nose, and eyes.
 - Precautions should be taken to avoid injuries with sharp objects (broken slides, needles, tubes etc...). Should any such injury occur, notify your instructor IMMEDIATELY.
 - Long hair must be pinned up or pulled away from face and neck. Refer to Clinical Dress Code.
 - Closed-toe, clean, leather shoes must be worn.
 - Avoid wearing chains, bracelets, excessive amounts of rings, or other loose hanging jewelry. Refer to Clinical Dress Code.
 - Cell phones are not allowed in the laboratory.
 - Students are responsible, after proper instruction, for locating and interpreting SDS sheets.
 - Follow the manufacturer's and the hospital's instructions when operating any laboratory equipment. All equipment must be handled with care and properly cleaned after each use. Report any broken, frayed, or exposed electrical cords to the instructor immediately.
- Report any broken glassware or damaged equipment to the instructor immediately.

SIGNATURE SHEET



MEDICAL LABORATORY SCIENCE
PROGRAM POLICIES AND
PROCEDURES PROGRAM
HANDBOOK 2023-2024

I, _____, certify that I have a copy of the MLS/MLS Policies and Procedures Program Handbook 2023-2024. I have reviewed the information carefully and understand that I am accountable for all of the information in the MLS Program Handbook. I further understand that I am responsible for clarifying with a MLS faculty member any areas that I do not understand.

I have been given the opportunity to ask any questions that I have about the MLS/MLS Program Handbook.

I understand the policies for progression in and completion of the MLS Program.

I have read, understand, and agree to perform the Essential Functions as described in the handbook. If needed, I have made arrangements through Student Support Services for necessary accommodations in order to perform the Essential Functions.

I have been advised that the information in the MLS Program Handbook is valid for the period beginning August 2023 and ending when superceded.

Student Signature

Date

WAIVER OF ADMISSION REQUIREMENTS

(Drug Screen, Background Check, PPD, Physical Exam, and Immunizations)

This form must be filled out by either the Lab Manager/Supervisor **OR** a HR Representative. Please make sure the student's name is listed in the first blank, and the Lab Manager/Supervisor/HR Representative fills out the bottom half.

The **student**_____ is an employee of our laboratory facility and is already covered by HR policies regarding these entrance requirements. The student receives a PPD from our infection control department on a regular basis, has been required to have given proof of all immunizations, has been submitted to drug screen and criminal background check upon employment, and receives an annual physical exam when applicable for all of these items.

Please check one of the following boxes as applies to your facility.

☐ This student meets all the requirements listed above, and is waived from a requirement to produce these records before entrance to our facility for the purpose of clinical rotations.

☐ This student will be required to submit all applicable documents before beginning clinical rotations in our facility and understand that the affiliate requirements supersede Thomas University's MLS Program admission requirements as listed above.

Signature: _____

Title: _____

Printed Name: _____ Date: _____

Phone Number: _____

Email Address: _____

Laboratory Facility: _____

****Please send this completed form to Jeanette
Norris Via email: jnorris@thomasu.edu**

THOMAS UNIVERSITY : CLINICAL AFFILIATE INFORMATION SHEET

Clinical Facility Name:

Please check all accrediting bodies that apply:

CAP

JCAHO

COLA

CLIA

AABB

Other

List of Capital Equipment Per Department

Does this facility require specific textbooks for clinical students?

Yes No

If yes, please list

Do students have access to periodicals? If yes, please list.

Yes No

If yes, please list

Does this facility require special objectives or evaluations that are different or additions to the clinical checklists provided by the school? If yes, please explain

Yes No

If yes, please explain

Does this facility have any unique policies governing student behavior that are additions to the student clinical conduct section of the rotation manual? (Examples: HR Orientations, CPR training, Facility HIPAA training etc...)

Clinical Facility Fact Sheet (All Programs)

Facility

Institution	
Address	
City, State, Zip	
Telephone	

Accreditation

Accredited by	TJC	CLIA	COLA	CAP	Other (please list)
Check all that apply					

Clinical Liaison

Name and Position	
Credentials	
Education	
Length of Experience in Clinical Laboratory	
Types of Positions held in the Field	

For each of the following clinical areas, please identify (add rows as needed):

Department (ie: Chemistry, Hematology, etc.)	# Students in clinical experience at one time	Length of clinical experience