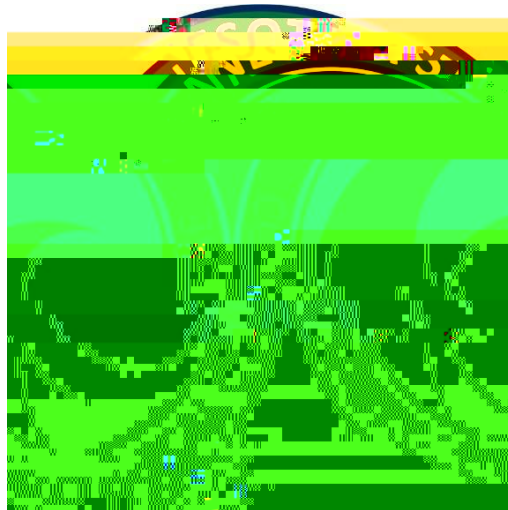


Medical Laboratory Technician Program Handbook 2023-2024



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Program Mission Statement

The mission of the Medical Laboratory Technician Program at M State is to provide students with the appropriate education and training to develop entry-level competencies in all routine areas of the clinical laboratory and to prepare them to practice as ethical and competent professionals.

Description

The Medical Laboratory Technician (MLT) is qualified by academic and applied science education to provide service in clinical laboratory science and related areas in rapidly changing and dynamic healthcare delivery systems. Medical laboratory technicians perform 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 technician has diverse and multi-level function in the areas of collecting, processing, and analyzing biological specimens and other substances, principles and methodologies, performance of assays, problem solving, troubleshooting techniques, significance of clinical procedures and results, principles and practices of quality assessment, for all major areas practiced in the contemporary clinical laboratory.

MLTs 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 professional, and others in laboratory

Increase involvement in community services through regular health-related activities and improve the delivery of health care services in the region and state.

Program Outcomes and Career Level Competencies

The MLT program is designed to prepare future medical laboratory technicians with the competencies necessary to perform routine clinical laboratory tests in areas such as Clinical Chemistry, Hematology/Hemostasis, Immunology, Immunohematology/Transfusion medicine, Microbiology, Urine and Body Fluid Analysis, and Laboratory Operations.

The level of analysis ranges from waived and point-of-care testing to complex testing encompassing all major areas of the clinical laboratory. MLTs have diverse functions in areas of pre-analytical, analytical, post-analytical processes. The medical laboratory technician will have responsibilities for information processing, training, and quality control monitoring wherever clinical laboratory testing is performed.

After successful completion of the MLT program, the student will be able to:

- Evaluate the importance of patient identification, collection, transport, processing of blood and body fluid specimens for analysis.

- Safely collect and process biological specimens for analysis.

- Perform accurate laboratory testing including quality assurance and quality control procedures.

- Operate laboratory instruments/analyzers and perform preventive and corrective maintenance when required.

- Apply basic scientific principles in learning new techniques and procedures.

- Recognize factors that affect procedures and results and take appropriate actions within predetermined limits when corrections are indicated.

- Demonstrate multitasking skills where a wide variety of testing procedures are performed.

- Correlate didactic and clinical phases of laboratory testing in the evaluation and interpretation of laboratory test data in health and disease.

- Demonstrate career entry competencies as defined by NAACLS.

- Demonstrate professional conduct and interpersonal communication skills with patients, laboratory personnel, health care professionals and the public.

- Recognize the responsibilities of other laboratory and health care personnel and interacting with them with respect for their3(p)94for t

approved grievance procedure. If a student is readmitted, he or she may need to wait for the next offering of the class to apply or to be placed into a different clinical site. Refer to the M State Student Handbook for more detailed procedures.

BrightSpace

All course documents are available on BrightSpace in the correlated core or clinical course.

bloodborne pathogens and their transmission to their students. The curriculum must reflect content related to bloodborne pathogens and the practice of standard precautions.

and clinical sites. Students, faculty and staff should follow the recommendations published by the CDC for hand washing. <http://www.cdc.gov/handhygiene/>

Hands should be washed with soap and water when hands are visibly dirty, contaminated with blood or body fluids, contaminated with protein-based substances, and at the beginning of the clinical or lab experience.

The preferred method of hand hygiene is with an alcohol-based hand sanitizer when hands are not visibly dirty.

Hand hygiene should be performed at the following times:

- Before direct contact with all patients
- Before donning gloves
- After removing gloves
- After contact with patient intact skin
- After contact with blood, body fluids, excretions, mucous membranes, non-intact skin, or wound dressings
- During patient care, if hands are moving from a contaminated body site to a clean body site
- After personal contact such as nose blowing, sneezing, or using the bathroom
- Before preparing or eating food
- After touching the patient's surroundings

Food and Drink

Food and drink may not be stored in refrigerators, freezers, shelves, cabinets, or on countertops where blood or other potentially infectious materials are present. Eating, drinking, applying cosmetics, handling contact lenses is prohibited in work areas where there is reasonable likelihood of occupational exposure.

Personal Protective Equipment (PPE)

Students must use appropriate PPE whenever there is risk of occupational exposure. Gloves must be worn whenever the student expects to have hand contact with blood or other potentially contaminated surfaces.

Gloves must be changed between patients.

home.

Housekeeping

Student should contact both instructor and facility staff member prior to cleaning contaminated areas. Contaminated work surfaces must be decontaminated with an appropriate disinfectant after completion of procedures. Students must wear gloves when cleaning contaminated surfaces. Students must use mechanical means to pick up broken glassware that may be contaminated. Broken contaminated glassware must never be picked up by hand, even if gloves are worn.

Regulated Waste

Liquid, semi-liquid blood items that are caked with dried blood (or other potentially infectious materials capable of being released during handling) should be placed in appropriate containers. Containers must be closable, able to fully contain all contents, and prevent leakage of fluids during handling, storage, and transport. They must be labeled with a biohazard label and/or color-coded red. All regulated waste is disposed of according to applicable local, state, and federal laws.

Hepatitis B Vaccination

Students are required to receive the Hepatitis B vaccination series. The expense of the vaccination is the student's responsibility. If a student is not medically eligible to receive the Hepatitis B vaccination series, they must sign a Hepatitis B waiver form. Refusal to receive Hepatitis B vaccination may limit clinical opportunities or placement in a clinical site.

Procedure

Laboratory Policies and Safety

the applicant meets all of the entrance requirements without regard to age, religion, race, color, place of national origin, or sex. The MLT program staff work hard to place students at clinical affiliates that are appropriate for their location and readiness to start the clinical internship experience. However, issues and delays may occur.

The class ranking system will determine the priority of the student for the clinical internship experience. For example, if there are 12 affiliated clinical sites, then the top 12 students will be placed first.

If the number of students admitted exceed the number that can be accommodated in the clinical experience assignments, they will be pum# t # p e uE lp# as p

take all courses over.

- Students, who are unsuccessful in two or more program courses, are not eligible to progress and are not eligible to reapply to program for three (3) years from the end of the unsuccessful term.
- To be eligible to progress into the final semester clinical courses, students must be successful with a “C” or better in all program and general education courses.
- Students, who are unsuccessful in any one of the last semester practicum courses, are not eligible to progress and must have a conversation with their advisor and submit a Revised Plan of Study. Student’s request to continue in program will be evaluated by the MLT Appeals and Progression committee

student in the laboratory.

- Failure to comply with Health Insurance Portability and Accountability Act of 1996 (HIPAA) regulations. Warning:
 - If a student is not performing satisfactorily the instructor and/or clinical staff will communicate these deficiencies in writing (e.g. evaluation sheet, email) to the student. Conduct warning is a notice to students that their conduct has been questionable and that future breaches of conduct will be treated more severely. Warning may be documented on a tally sheet evaluation and the Dean of Academic Affairs may be notified.

Students dismissed for reasons of either grades or not meeting professional standards will not be allowed reentry into the program for three (3) years.

Dismissal Process from Clinical Internship or Program

Students are expected to comply with the M State Student Code, which appears in the Student Policies Manual and is the basic guideline reflecting college-student relations. The Code defines student behavior, expectations and related college conduct and judicial procedures.

In addition, all Medical Laboratory Technician (MLT) and Phlebotomy Technician (PBT) students

complete appeals request during the academic year. The Committee does not meet during times when faculty are not on contract (such as during semester breaks, spring break, holidays, weekends, and summer).

A student may request to be present at discussion by sending email to MLT/PBT Program Director at the same time the appeal is submitted. Students will be expected to follow the instructions for connecting to the discussion at the specified time, or they will forfeit their right to be present.

All appeals are considered individually, based on the content and documentation provided by the student.

The MLT/PBT Program Director, or designee, will communicate Committee decisions by letter sent to the student's school email and a copy is filed in the student's academic record, and College appeal log. Decisions may also be communicated with student services directors, associate registrars, admissions, advising, counseling, and faculty as appropriate.

Approved Appeals:

Readmission to the program is contingent upon the following:

Documented completion of terms and conditions advised by the Committee within the

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- MLT 2267 – Diagnostic Microbiology Lab (1 credit)
- MLT 2131 – Diagnostic Chemistry Lecture (3 credits)
- MLT 2132 – Diagnostic Chemistry Lab (1 credit)
- MLT 1110 – Phlebotomy Skills (2 credits)
- MLT 2350 – Professional Issues in Medical Laboratory Technology (2 credits)

2nd Spring Semester

- MLT 2346 – Clinical Applications (1 credit)
- MLT 2223 – Clinical Urinalysis and Body Fluids (2 credits)
- MLT 2232 – Clinical Hematology and Coagulation (3 credits)
- MLT 2224 – Clinical Immunohematology (3 credits)
- MLT 2227 – Clinical Chemistry and Immunology (3 credits)
- MLT 2231 – Clinical Microbiology (3 credits)

MLT Course Descriptions

All MState and MLT course descriptions can be found on the website at:

<https://www.minnesota.edu/course-descriptions>

Clinical Internship Schedule

The clinical internship begins the first day of the spring semester (unless an alternate plan has been established). The internship runs in conjunction with the second semester spring courses. Each portion of the clinical rotation is linked to modules in the associated clinical course. For example, learning objectives are available in MLT 2223 Clinical Urinalysis and Body Fluids for students completing the urinalysis and body fluids portion of the clinical internship experience.

Order of Rotation

The rotation plan for

through the “Calendar of Events” portion of this handbook. Students will enter their clinical internship after successful completion of the core MLT courses. Students are required to obtain his or her own uniform if scrubs are not provided by the clinical affiliate. Students must follow all clinical site policies and procedures.

Clinical Internship Attendance

A total of 640 hours (16 weeks) of on-the-job training is required to complete the clinical internship experience. Students may utilize 2 days of personal time off (16 hours) for medical or personal reasons, the student must work the clinical coordinator and clinical facility to schedule make-up hours. M State will work to help make reasonable accommodations for approved medical or personal time off. However, it is the student’s responsibility to be in consistent communication with the clinical coordinator and the clinical facility. Failure to respond to emails or arrange make-up hours will result in the loss of the clinical facility assignment and dismissal from the MLT program.

During the training period, the assignment to a night and weekend schedule may occur at the discretion of the clinical affiliate using the following guidelines:

Weekend training should not be assigned before the student has completed 8 weeks of internship training.

Weekend training shall not exceed two weekend days every four weeks.

Weekend and night work should be a reinforcement of procedures performed during clinical training and must be done under the direct supervision of a medical technologist. Weekend and alternative shifts will provide learning experiences not available on days.

Students assigned to weekends or extra time must be given compensatory time off during the week.

The student must not be salaried for the regular 40 hr/week that is a scheduled part of their training.

Become familiar with the clinical internship site’s policies. E.g. Many have a “scent free” policy.

The student may be scheduled for a specified shift if a particular department rotation may be learned more adequately during those hours. (In some hospitals some special tests and procedures are done on the evening or night shift.)

Personal Time Off Expectations:

Student will notify section staff (where applicable) and clinical site supervisor all scheduled and non- scheduled PTO.

PTO may be used for example: to attend job interviews and for weather-related absences.

Absences beyond two days for ANY REASON may result in an attendance contract which may jeopardize completion of internship. Days will need to be made up at the discretion of t

Laboratory Reporting

All laboratory reports of the student must be co-

Discussion of the dress code, grooming guidelines, and other related subjects.
Explanation of parking facilities.
Telephone etiquette that is followed in the laboratory.
Procedure for requesting time off for appointments.
Policies regarding make-up work for all absences.
Procedure for calling in when ill or tardy.
Use of identification badges.
The hours and the policy for working weekends, holidays, evenings, etc.
Time and length of coffee breaks and lunch periods.
Policies regarding patient confidentiality.
Standard precautions/risk management.
HIPAA.
Safety, standard precautions, chemical safety, fire and infection control.

Phlebotomy Training Restriction

Phlebotomy training should be provided on a regular basis not to exceed 100 hours of training. If a student is already a phlebotomist, omit one week of phlebotomy training and limit phlebotomy to 1 hour per day. Time that would have been spent on phlebotomy training should be replaced with another training area. This training area will be chosen by the site. It is also recommended that blood drawing does not occur when student is training in the areas of blood banking and microbiology to encourage uninterrupted continual learning.

Service Work

Students are not used as part of the clinical facility's work force and are not paid. Assigned clinical experience hours are not made on weekends, holidays, evening or night shifts.

Students will not be used to substitute regular employees as part of their clinical internship experience. Service work by students in clinical settings outside of academic hours is not a requirement. If the student works for the laboratory outside of the academic hours, it will not be counted towards the student's clinical internship hours. Hours worked outside of the clinical internship experience should not interfere with the student's progression through the MLT program. Examples of service work include but are not limited to: working as a phlebotomist, laboratory assistant, or continuing to work evening shifts or weekends at a clinical affiliate during the student's progression through the MLT program.

In-services and Field Trips

Students should be required to attend all in-

Clinical Competency Checklists will be completed in each clinical course and used to assess a student progress during the correlated clinical experience.

Clinical Competency Checklists are completed by clinical affiliate instructors.

Failure to successfully demonstrate the minimum competencies and complete the checklist within the allocated timeframe will result in a failure of the course and the dismissal from the program.

- At the discretion of the program director and clinical affiliate staff additional time or remediation may be given.
- A maximum of four additional weeks may be allocated.

Completed Clinical Competency Checklists must be scanned and submitted in the appropriate dropbox on BrightSpace. This is the student's responsibility to ensure proper submission of the completed form.

Affective

An affective assessment is included in each psychomotor evaluation.

Rubric style assessment will be completed by clinical affiliate staff along with comments.

Assessment is completed in each clinical course.

Failure to successfully demonstrate the minimum competencies and complete the checklist within the allocated timeframe will result in a failure of the course and the dismissal from the program.

- At the discretion of the program director and clinical affiliate staff additional time or remediation may be given.
- A maximum of four additional weeks may be allocated.

Completed Clinical Competency Checklists must be scanned and submitted in the appropriate dropbox on BrightSpace. This is the student's responsibility to ensure proper submission of the completed form.

Clinical Affiliates

The following facilities are current affiliates of the MLT program and possible locations for completing the MLT clinical internship experience. This list include(st)JTJETQq0.00000912 0 612 792 reW* nBT/F1 11.0

reviewed. Additional visits may be requested and completed as needed.

Electronic Devices

All electronic devices need to be turned off during class, laboratory sessions, and working in the laboratory at a clinical affiliate. It is preferred that you keep your cell phone turned off or left in your purse, tote, or backpack. Notify instructor before class if you are expecting an emergency call.

Graduation

Requirements for graduation include the following:

All MLT/Phlebotomy

Historical Program Outcome Data

Graduation Rates:

2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
100%	91%	60%	64%	100%	100%	100%	88%	100%

BOC Examination Pass Rates:

2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
67%	90%	50%	67%	71%	60%	100%	75%	TBD

Placement Rates:

2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
75%	80%	100%	87.5%	100%	100%	100%	100%	100%

*Recent graduate data is subject to change. Not all recent graduate data is complete.