2020-2021
MEDICAL LABORATORY TECHNICIAN HANDBOOK
MADISONVILLE COMMUNITY COLLEGE

Dear Student,

Welcome to the MLT Program!

If you have questions regarding the college and the MLT program, it is my desire to provide you with answers to many of the questions frequently asked during the first days of school.

Deciding to become a student has been a big decision for you. Much sacrifice and hard work will be required throughout the next two years of study. Successful completion of this program, as well as passing the certification examination, will result in a lifetime of varied occupational opportunities.

You are encouraged to fully participate in all aspects of the MLT program and Madisonville Community College. It is the desire of this institution and the MLT Program Director that you will successfully complete the MLT program. To this goal I dedicate this handbook.

Amanda Payton, MSHS, MLS(ASCP), MT(AAB)

MLT Program Coordinator

Madisonville Community College
Allied Health Campus
750 North Laffoon Street
Madisonville, KY

Telephone number: 270-824-1741
Fax number: 270-824-1879
E-mail address: amanda.payton@kctcs.edu

MEDICAL LABORATORY TECHNICIAN

PHILOSOPHY

The philosophy of the Medical Laboratory Technician program embraces the concept that all people have dignity and worth. Each individual should be afforded the opportunity to achieve goals in the vocation of his/her choice. The program is designed to serve the needs of those who wish to enter the field of medical laboratory science on the technician level. Training is open to all adults 18 years of age or older (including handicapped, disadvantaged, or unemployed) who meet the requirements of the program and those specified by the National Accrediting Agency for Clinical Laboratory Sciences. The code of medical ethics as prescribed by the American Medical Association, American Society of Clinical Pathologists, and American Society of Medical Technologists is adhered to during all phases of instruction.

MISSION

The primary mission of the MLT program is to prepare the student for gainful employment in the area of medical laboratory sciences. Integral to this purpose is assisting students in the development of the technical skills and knowledge necessary to perform testing in a medical laboratory.

MLT PROGRAM GOALS

A student at the end of the MLT program successfully:

1. Defines/identifies the basic principles and procedures of all departments of the laboratory.

2. Selects/prepares/performs laboratory procedures including specimen collection, instrumentation, reagents and controls related to microbiology, hematology, chemistry, urinalysis, serology, and blood bank.

3. Calculates results from supplied information and/or obtained data as related to microbiology, hematology, chemistry, urinalysis and various body fluids, serology, and blood bank.

4. Associates laboratory findings, clinical information and quality control data in order to determine the accuracy of routine test results related to microbiology, hematology, chemistry, urinalysis, serology, and blood bank.

5. Evaluates/analyzes laboratory procedures and/or findings in order to recognize common procedural and/or technical problems and take corrective action according to predetermined criteria in microbiology, hematology, chemistry, body fluids, immunology and blood bank.

6. Graduates with an Associate of Applied Science degree (AAS) and is successful in passing the American Society of Clinical Pathology (ASCP) Board of Certification.

PROGRAM COMPETENCIES

General Education Competencies:

Students should prepare for twenty-first century challenges by gaining:

1. Knowledge of human cultures and the physical and natural worlds through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts.
2. Intellectual and practical skills, including
    a. inquiry and analysis
    b. critical and creative thinking
    c. written and oral communication
    d. quantitative literacy
    e. information literacy
    f. teamwork and problem solving
3. Personal and social responsibility, including
    a. civic knowledge and engagement (local and global)
    b. intercultural knowledge and competence
    c. ethical reasoning and action
    d. foundations and skills for lifelong learning
4. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized skills.

Associate in Applied Science in Medical Laboratory Technician competencies:

1. Perform laboratory tests in all areas of the clinical laboratory.
2. Maintain laboratory materials and equipment.
3. Prevent and detect technical errors.
4. Solve problems as they occur in the clinical laboratory.
5. Carry out an established quality assurance program.
6. Demonstrate professionalism.
7. Follow established clinical laboratory safety guidelines.
8. Demonstrate responsibility for his / her own behavior and dependability towards required duties.

9. Follow all institutional policies.
10. Apply the principles of medical ethics.
11. Demonstrate professionalism.
12. Demonstrate a satisfactory working relationship with peers and clinical instructors.
13. Exhibit enthusiasm and initiative towards all subject areas.
14. Recognize his or her own limitations and seek help when necessary.
15. communicate effectively using standard written English;
16. communicate in a clear oral and non-verbal fashion and employ active listening skills;
17. organize, analyze and make information useful by employing mathematics;
18. demonstrate an awareness of one's interaction with the biological/physical environment;
19. demonstrate an awareness of one's self as an individual, as a member of a multicultural society, and/or as a member of the world community;
20. recognize the impact of decisive ideas and events in human heritage;
21. develop and perform basic search strategies and access information in a variety of formats, print and non-print;
22. analyze, summarize, and interpret a variety of reading materials;
23. think critically and make connections in learning across the disciplines;
24. elaborate upon knowledge to create new thoughts, processes, and/or products; and,
25. demonstrate an awareness of ethical considerations in making value choices.

Phlebotomy for the Health Care Worker—Certificate competencies:

1. Demonstrate professionalism.
2. Follow established clinical laboratory safety guidelines.
3. Demonstrate effective written and oral communication with supervisors, peers, physicians and patients.
4. Demonstrate an awareness of ethical considerations in making value choices.
5. Carry out an established quality assurance program.
6. Perform routine capillary and venipuncture procedures.

Physician's Office Laboratory—Certificate competencies:

1. Demonstrate professionalism.
2. Follow established clinical laboratory safety guidelines.
3. Demonstrate effective written and oral communication with supervisors, peers, physicians and patients.
4. Demonstrate an awareness of ethical considerations in making value choices.
5. Carry out an established quality assurance program.
6. Perform routine capillary and venipuncture procedures.
7. Perform minimum complexity testing in the clinical laboratory.

PROGRAM DESCRIPTION

The Medical Laboratory Technician (MLT) program provides students with the opportunity to acquire the necessary skills to work under the supervision of a registered medical laboratory scientist or pathologist in a clinical laboratory, hospital, or other health agency.

The MLT student learns to collect specimens from the patient and perform laboratory tests in all areas of the clinical laboratory to include immunohematology, clinical chemistry, hematology, microbiology, serology and urinalysis.

Students enrolled in the MLT program must achieve a minimum grade of "C" in each of the medical laboratory technician and phlebotomy courses to graduate.

Upon completion of the program, the graduate is eligible for the American Society of Clinical Pathologists certification as a Medical Laboratory Technician.

KCTCS Certificates are available in Physicians Office Laboratory and Phlebotomy, and can be obtained within the MLT program or individually.

CURRICULUM OUTLINE*: AAS in Medical Laboratory Technician*

Technical Courses:

PHB170	Applied Phlebotomy	3
PHB 152	Phlebotomy Clinical Experience	1
MLT 112	Urinalysis	2
MLT 115	Serology	2
MLT 207	Introduction to Clinical Diagnostic Microbiology	2
MLT 208	Clinical Diagnostic Microbiology I	3
MLT 209	Clinical Diagnostic Microbiology II	2
MLT 217	Introduction to Hematology	3
MLT 218	Clinical Hematology	4
MLT 227	Immunohematology	4
MLT 247	Introduction to Clinical Chemistry	3
MLT 248	Advanced Clinical Chemistry	3
MLT 2781/2782 or 278	Practicum I	5
MLT 2791/2792 or 279	Practicum II	5
	Subtotal Technical Hours	***42***

General Education Courses

ENG 101	Writing I	3
MAT 110	***OR*** a higher math course	3

PSY 110	General Psychology		3
CIT 105	Intro to Computers or other approved digital literacy course		3
BIO 135	Anatomy & Physiology with Laboratory		4
	Heritages or Humanities	3	
	Oral Communications	3	
CHE 130 or 140	General Chemistry I		3-4
	Subtotal General Education		***25-26***
	Total Hours		***65-70***

**** Completion of a basic life saver CPR course is required before starting clinical rotations the second year.***

KCTCS CERTIFICATES:

Physicians Office Laboratory Certificate*:

PHB170	Applied Phlebotomy	3
PHB 152	Phlebotomy Clinical Experience	1
MLT 112	Urinalysis	2
MLT 115	Serology	2
	Total hours	***8***

Phlebotomy for the Health Care Worker Certificate*/:**

PHB170	Applied Phlebotomy	3
PHB 152	Phlebotomy Clinical Experience	1
	Total hours	***4***

**additional requirements necessary for national registry certification.*

MLT COURSE DESCRIPTION

PHB 170: Applied Phlebotomy

This course is designed to teach proper techniques in venipuncture and capillary collection. Included in the course is a study of medical ethics, laboratory terminology, anatomy and physiology of the circulatory system, communication and record keeping, specimen processing, laboratory safety, isolation procedures, special collection procedures, donor collection , specimen processing for the various laboratory departments, venipuncture complications, and quality assurance.

PHB 152: Phlebotomy Clinicals

This course introduces the student to clinical practice in the phlebotomy department of the laboratory. The student will begin to develop performance skills in routine

venipuncture and capillary collection procedures. This course utilizes and depends upon external institutions to insure adequate clinical education and training. A prescribed schedule of clinical rotations in the phlebotomy area will be provided for the student by the instructor.

MLT 112: Urinalysis

The major focus is on the methodology and clinical significance of urine chemical analysis, interferences with chemical analysis procedures, screening methods used in diagnostic determinations, collection and handling of specimens, and the characteristics and clinical significance of formed elements of the urine. The physiological function of the kidneys and diseases which affect the urinary system are also present.

MLT 115: Serology

Basic immunological principles are introduced. Applications of serological testing for the diagnosis and monitoring of diseases and other antigenic responses are included.

MLT 207: Introduction to Diagnostic Clinical Microbiology

Reviews the basic concepts of bacterial cell structure, physiology, nomenclature and classification are reviewed. Emphasizes safety in the microbiology department of the laboratory. Introduces specimen processing as it relates to the microbiology department in the clinical laboratory. Discusses the practical importance of identifying microorganisms through morphology on culture media, appearance on gram stain, and biochemical reactions.

MLT 208: Diagnostic Clinical Microbiology I

Discusses theoretical concepts, disease processes, identification schemas, diagnostic characteristics, biochemical reactions, susceptibility testing, and isolation techniques of gram positive and gram negative microorganisms associated with infections diagnosed in the clinical laboratory microbiology department.

MLT 209: Diagnostic Clinical Microbiology II

Exposes the student to a study of anaerobes, spore forming gram positive bacilli, virology, mycobacterium, mycoplasma, spirochetes, mycology and parasitology with focus on the clinical diseases and diagnostic procedures in the microbiology department of the clinical laboratory.

MLT 217: Introduction to Hematology

Classic methodologies related to standard hematology procedures are presented. Procedures include collection and processing of proper specimens, performance of quality control, and analysis of fundamental hematological parameters to aid in diagnosis.

MLT 218: Clinical Hematology

Continues the study of hematology. Includes hemostasis, anemias, leukemias, lymphomas, miscellaneous abnormal white blood cell disorders, body fluid analysis and other special hematological procedures.

MLT 227: Immunohematology

This course includes the principles of immunology in relation to blood banking, blood group systems, donor processing and screening, antibody screening, panel interpretation, compatibility testing, blood components, viral markers and related diseases, hemolytic disease and HLA markers.

MLT 247: Clinical Chemistry I

Introduces the student to a variety of automated instrumentation and methodologies of selected chemistry test procedures. Exposes student to the basic principles as well as the techniques used in clinical chemistry to assess carbohydrates, non-protein nitrogen compounds, amino acids and proteins, lipids and lipoproteins, and enzymes as related to clinical diagnosis. Acquaints the student with basic laboratory mathematics and quality assurance procedures utilized in the clinical laboratory department.

MLT 248: Advanced Clinical Chemistry

Continues the study of clinical chemistry. Presents a study of lipids and lipoproteins, acid/base balance, electrolytes, endocrine system, liver, gastrointestinal and pancreatic function, therapeutic drug monitoring, and toxicology.

MLT 278: Practicum I

Practicum I is designed to develop performance skills and professional attitude in the student in all areas of the clinical laboratory. This course utilizes and depends upon external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel in each department of the laboratory to assist the student in all areas of the clinical laboratory. A prescribed schedule of rotations in each department of the laboratory is provided for each individual student by the MLT program director. (This class may be divided into 2.5 credit hour fractions – MLT 2781/2782)

MLT 279: Practicum II

Practicum II is designed to develop performance skills and professional attitude in the student in all areas of the clinical laboratory. This course utilizes and depends upon

external institutions to insure adequate clinical education and training. Each clinical laboratory affiliate has designated personnel in each department of the laboratory to assist the student in all areas of the clinical laboratory. A prescribed schedule of rotations in each department of the laboratory is provided for each individual student by the MLT program director. (This class may be divided into 2.5 credit hour fractions – MLT 2791/2792)

ADMISSION REQUIREMENTS

Admission into the MLT Program:

- Submit a completed application to the college.
- Submit high school or GED transcripts.
- Submit ACT, SAT, or Compass scores.
- Submit transcripts of all post-secondary education.
- Complete an application for the program before the March 15th deadline.
- Complete pre-admission interview and be accepted to the program. Admission to the program is based on GPA and results of the interview.
- Complete Technical Standards form.
- Complete BIO 135, MAT 110 or higher, PHB 170 and PHB 152 with a "C" or above

Prior to beginning any clinical experience (such as PHB 152, MLT 278 or MLT 279), the student will be required to complete the following:

- Verification of MMR, Varicella vaccine or proof of immunity, Tuberculin skin test (up to date T-Spot or chest x-ray will satisfy this requirement), and flu shot.
- Verification of Hepatitis B vaccinations or signed waiver of refusal. **Some clinical facilities may require hepatitis B vaccination so a refusal to take the vaccine could limit the number of available clinical sites to a student.**
- Purchase Liability Insurance through a KCTCS college. This insurance is included in your tuition, unless your home college is another KCTCS school. In this case, liability insurance must be purchased separately.
- **Students will be required to purchase bookstore vouchers for MediaLab exam simulator and Trajecsys electronic clinical recordkeeping software at the beginning of the clinical semester.**
- Criminal Background check and Drug screen
    - ❖ Drug screens, background check, TB skin test and flu shot is done annually throughout the program.

MADISONVILLE COMMUNITY COLLEGE
HEALTHCARE DOCUMENTATION REQUIREMENTS FOR THE CLINICAL EXPERIENCE

Purpose: In complying with the standards of the Joint Commission for the Accreditation of Healthcare Organizations (JCAHO), it is necessary for all students engaging in clinical experiences to comply with those standards that pertain to providing a safe environment for their patients. All allied health and nursing students will comply with the requirements of the clinical affiliates in order to meet these standards. ***These include:***

Criminal Background Check: All students will provide the college and the clinical affiliates with an **initial and/or annual** National and Statewide Kentucky State Background Check through Castle Branch. The cost is approximately $33 and a Student Instruction Form will be provided to all students. The student will not attend clinical experiences until the check has been completed. A student with multiple offenses or those that bear directly on the practice as a professional will not be able to complete their clinical experiences. This may require the student to withdraw from his/her program.

Urine Drug Screening: All students will complete an **annual 10 panel drug** screening before attending clinical experiences. Students will be responsible for the cost (approximately $50). Students will be required to pay for the test at the same time as the background check, as both are performed through Castle Branch.

Students who test positive will be required to meet with the respective Division Chair and other designated personnel. Students who test positive for illegal drugs will not be allowed to complete the clinical experience and therefore must withdraw from their program area.

Should a student in the clinical setting **appear to be impaired** by drug usage, the instructor will ask the student to leave the unit and be escorted to the lab for a drug screening. The student will be responsible for this cost. Should the screening results be positive the student will be required to meet with the respective Division Chair and other designated personnel to determine if the student will be allowed to continue in the program.

Immunizations and Vaccinations: Prior to the first clinical experience, all students must provide documentation to prove the following:

- MMR vaccination or immunity (initially – one time)
- Varicella vaccine or proof of immunity (initial)
- Hepatitis B vaccination or a signed waiver (initially – one time)
- TB skin test, T-Spot, or chest Xray (initially and annually)

Additional vaccinations that may be required as specified by the program area:

- Flu Shots (annually)
- DPT vaccination and up to date tetanus shot (initially – one time)

Results of Background Check and Screening: Results of the Criminal Background check and Drug screening will be handled directly through Castle Branch.. The MLT program utilizes the

immunization tracker made available through Castle Branch, which means that students will be required to upload, mail or fax all of their immunization and vaccination records required by their specific program area to their student account with Castle Branch. Castle Branch's Certified Medical Staff will be responsible for reviewing and approving or rejecting the student's records.

Program faculty will pass out the Student Instruction Forms to all the students needing to order a Background Check, Drug Screen and/or Immunization Tracker.

Students are instructed to go to **www.castlebranch.com** where they can order and pay for their background check and drug test, and, if required, the Immunization Tracker.

Students receive drug testing instructions, applicable forms and collection site locations.

Results of the background check and drug screen are made available securely on castlebranch.com for the college, clinical affiliates (if applicable) and student to access.

Programs have the option to have students upload, mail or fax all immunization records. A certified Medical Transcriptionist at Castle Branch will thoroughly review each record and determine, based upon each program's criteria, whether the record is acceptable or needs attention.

HEALTH AND SAFETY

School Related Accidents and Incident Reports

- Accident school coverage is only provided by MCC for the student while attending class or clinicals.
- When an incident occurs, notify a clinical instructor as soon as possible and then notify program faculty.
- An incident report is written documentation of the facts concerning injury to patient or student.
- Fill out a form as soon as possible no matter how trivial the incident may appear to be at the time (within 24 hours).
- In addition to the incident form, submit a summary of the incident to be kept in the student's program file.
- Personal injuries and illness requiring medical treatment becomes the financial responsibility of the student.

The College's insurance policy can change at any time due to the type of coverage and company insured with.

Procedure

Responsibility	Action
Student	• Notifies clinical instructor or supervisor (in the absence of instructor) as soon as possible after incident (within 24 hours). • Notifies program director as soon as possible. KCTCS incident form must be filled out within 24 hours of incident. • Clinical instructor or program director will direct student to proper place to seek treatment dependent upon severity of injury. • Gives fully completed incident form to appropriate person. • Gives incident summary to program director, as well as a copy of the incident form. • Arranges payment for personal injury or sickness.
Clinical Preceptor	• Assists student in filling out appropriate forms. • Advises the student to seek medical attention if injured. • Reports documentation to program director.
Program Director	• Assists student in filling out forms. • Files summary in student program file. • Reports documentation to Program Director. • Provides student with school accident form.
Program Director	• Reviews all documentation.

- A student who becomes ill or is injured at the clinical site must report to the assigned clinical preceptor and the Program Director as soon as possible. He/She will determine if it is necessary for the student to be seen by the employee health nurse or the emergency department will be made.
- The student is required to fill out an incident report at the school and the facility in the event of an injury or incident. An incident report is written documentation of the facts concerning injury to the patient or student.
- Fill out the incident report as soon as possible no matter how trivial the incident may appear at the time. The form must be completed within 24 hours of the accident or incident.
- A copy of the form will be kept in the student's program file.
- Personal injuries and illness requiring medical treatment are the financial responsibility of the student.
- If the student is required to have continuing medical treatment for a limiting disability or condition, the student is responsible for notifying the program director as soon as it is made known to the student.
- It is recommended that the student maintain individual health insurance coverage.

Liability Insurance
All students are required to carry professional liability insurance. Insurance is purchased as a blanket policy that covers all MCC students and is part of the tuition at MCC. This only covers personal injury at MCC or at a MCC clinical affiliate during assigned clinical hours.

Immunizations
Written proof of the following required immunizations must be submitted to the Director of Clinical Education. Required immunizations include:

- TB Skin Test -- Mantoux method tuberculin skin test within one calendar year.
    - Must be negative (0mm) reading. If student has had a positive TB skin test, documentation that appropriate medical follow-up has occurred must be provided.
- Measles (Rubeola) immunity. Those students born in 1957 or after must submit one of the following:
    - Documentation of 2 MMR or Rubeola vaccines; ***OR***
    - Positive Rubeola titer; ***OR***
    - Written documentation from physician that student has had the disease (10 day-measles, Rubeola).
- Although not mandatory, is highly recommended that persons at occupational risk of Hepatitis B infection/exposure to blood and body fluids should be vaccinated when they are in training. The vaccination series is the responsibility of the student. If you choose NOT to be immunized for Hepatitis B, you must sign a declination form.
- Documentation of Varicella vaccine, or proof of prior infection with chicken pox.
    - Student must provide documentation of TWO doses of varicella vaccine. If vaccine was not administered, the student must have titers drawn to prove immunity, or provide a written doctor's note confirming past infection with chicken pox.
- If the student does not have documentation of current TB skin test and/or Rubeola immunity, testing and/or vaccinations are available at local county health departments for a nominal fee, or through the physician of your choice. The testing/vaccination is the responsibility of the student.
- **Documentation must be submitted at least 2 weeks prior to beginning clinical affiliation, to prevent delay of rotation.**

Disease Prevention
All Medical Laboratory Technician students, in order to protect themselves, fellow health care workers, and patients will comply with each of the following:

- All of the program's clinical affiliate policies regarding infection control will be observed.
- Uniforms/street clothes and lab coats will be fresh each day.

- All appropriate PPE's will be worn and used when working in the clinical laboratory. **NO EXCEPTIONS.**
- Disposable gloves will be worn in all cases when contact with blood or body fluids is anticipated. This is MANDATORY.
- Masks will be worn when it is likely that blood or body fluids could splash in the nose or mouth.
- A lab coat will be worn should a splash of blood or body fluids onto the skin or clothing be anticipated.
- Cuts, scratches, or other non-intact skin will be covered to avoid contact with blood or body fluids.
- Goggles or other eye protection will be worn when a splash of blood or body fluid into the eye is anticipated.
- Blood or body fluid inadvertently coming in contact with the skin should be quickly and thoroughly washed away.
- Students that experience exposure to blood or body fluid will report to their clinical preceptor and follow clinical exposure protocol.
- Good hand-washing practices will be carried out before and after each patient contact.
- Students with a communicable disease will avoid patient contact until resolved.
- Any student who has or who contracts a communicable disease as so stated by a physician will be dismissed from class and clinical with an excused absence.
- It is the student's responsibility following any absence due to a communicable disease to complete tests and assignments missed during their absence.
- Re-entry following an absence due to a communicable disease is contingent on a signed physician's statement stating the student is no longer communicable.

Bloodborne Pathogen Policy

Prior to beginning clinical experience, the Medical Laboratory student will have completed instruction in the policy regarding Bloodborne Pathogens. This instruction will be in accordance with the OSHA Bloodborne Pathogen Disease training standard. Once the clinical experience begins the student will abide by the following rules:

- Participate in any clinical affiliate required Bloodborne Pathogen training.
- Follow the clinical affiliate policy and procedure concerning Bloodborne Pathogens.
- Report any exposure to bloodborne pathogens to the clinical preceptor and program director immediately.
- Disposable gloves will be worn in all cases when contact with blood and body fluids is anticipated.
- Masks will be worn when it is likely that blood or body fluids could splash in the nose or mouth.
- Eye protection will be worn when a splash of blood or body fluid into the eye is anticipated.
- Blood or body fluid inadvertently coming into contact with the skin should be quickly and thoroughly washed away.

- Students that experience exposure to blood or body fluid will report to their clinical preceptor and the program director and follow clinical exposure protocol.
- Cuts, scratches or other non-intact skin will be covered to avoid blood and body fluids.

All of the program's clinical affiliate policies regarding infection control will be observed.

Student Injury – Exposure to Blood or Body Fluid

Each clinical facility is expected to practice universal and standard precautions in compliance with OSHA and CDC guidelines. The student is educated in, and is expected to be knowledgeable in the practice of these precautions in the care of all patients and the performance of all laboratory procedures. Clinical grades are awarded according to student performance. Refusal to practice the safety guidelines outlined by the program faculty will result in disciplinary action and may result in dismissal from the program.

Procedure for Accidental Exposure to Blood or Body Fluid

All contaminated needle sticks of bloody body fluid splash to mucous membrane or open skin should be treated as if there is a potential risk of pathogen exposure**.**

If a student sustains a puncture wound:

- Withdraw the needle or other object immediately.
- Immediately wash hands/area of puncture wound using soap and water; follow with application of provoidine iodine or alcohol
- Encourage increased bleeding for a few seconds and use gentle pressure at the site of the puncture.
- Wipe away any blood.

If a student receives a spray or splash of body fluids:

- To eyes, nose or mouth – irrigates with a large amount of water.
- To a break in the skin, follow, procedure for puncture wound(above)

The student will report the incident immediately to the clinical preceptor and the program director. The student must complete an exposure form according to the policy of the clinical facility.

The student will follow the clinical facilities procedure for reporting and follow- up of exposure. Any required incident report must be completed before leaving the facility.

The student will seek a risk assessment and determination of recommended screening, treatment and follow-up from the Infection Control Practitioner.

HEPATITIS B VACCINE INFORMATION

The Disease

Hepatitis B virus, one of at least three Hepatitis viruses, is an important cause of viral Hepatitis. The illnesses caused by or related to Hepatitis B are serious, resulting in death in about 1% of those infected. Complications of the disease include a variety of liver disorders, including

cirrhosis and cancer. Most patients recover completely, but about 6 – 10% become chronic carriers and can continue to transmit the virus to others. There may be as many as 0.5 to 1.0 million carriers in the United States.

Transmission and Risks
The disease is transmitted chiefly through contact with infected blood and blood products. Health care providers therefore at increased risk of acquiring the disease. The risk for health care providers can vary dependent upon the amount and type of patient contact. Though the risk of acquiring Hepatitis B through the clinical experience is probably lower in some facilities due to the low incidence of the disease, the decision to receive or decline the vaccine deserves your careful consideration.

The Vaccine
Various pharmaceutical companies have developed vaccines that provide protection from Hepatitis B. Field trials have shown 80 – 95% efficacy in preventing infection among susceptible persons. The duration of protection and the need for booster doses is not yet known. Adult vaccination consists of three intramuscular injections of the vaccine. The second and third doses at one and 6 months respectively, after the first.

Waiver Format
- Consistent with guidelines developed by the CDC and the American Hospital Association, certain employees have been identified as being at relatively higher risk of exposure to Hepatitis B. Medical laboratory professionals have been designated in this group.
- Perhaps one in 50 employees of health care institutions have an acquired immunity to Hepatitis B through previous illness or exposure and would not need the vaccine. This can be determined by a laboratory-screening test.
- The Hepatitis B viral vaccine is available through the Health Departments, personal physicians or any hospital.
- As with any immunization, there are disadvantages and risks. If you wish further advice, please contact your personal physician.

SPECIAL LICENSURE OR CERTIFICATION

Upon successful completion of the technical program the student will be eligible to sit for the certification examination by the American Society of Clinical Pathologists. The outcome is certification as a Medical Laboratory Technician (MLT). Successful completion of the MLT program at MCC does not guarantee the student will be certified. The student will be eligible for the examination at the completion of the MLT program, and must register for the exam at www.ascp.org. The cost of the examination is $215.

REQUIREMENTS FOR GRADUATION

The student will have completed the program when they have:

- Attended the required MLT and academic courses and did not exceed absenteeism hours allowed under the attendance policy.
- Maintained a 75% average or above in each MLT or PHB course with an overall GPA of 2.0 or higher at the college.
- Fulfilled all college requirements for graduation.

Upon completion of requirements for graduation, the student will receive an Associate of Applied Science in Medical Laboratory Technology.

METHODS OF INSTRUCTION

The methods of instruction are varied throughout the year. Lecture is the major form of instruction for presentation of theory material. Other methods used to supplement the lecture are Power Point presentations, slides, Cellavision morphology software, MedTraining learning modules, and MediaLab exam simulator. In addition to lecture and visual presentations, skills are demonstrated and return demonstrations may be required. **STUDENTS WILL BE REQUIRED TO SUCCESSFULLY COMPLETE COMPETENCY TESTING COVERING BASIC LABORATORY PROCEDURES IN ALL DEPARTMENTS BEFORE BEGINNING CLINICALS**. As students proceed through the final semester of clinical experience, they perform all routine laboratory procedures under direct supervision of a clinical preceptor. The primary instructor for the MLT courses is the MLT program director, Amanda Payton. The learning experience is further enhanced by input from clinical sites through clinical preceptor evaluations.

JOB OPPORTUNITIES

Job opportunities are increasing in all areas of the country due to the retirement of many members of the workforce. Graduates of an MLT program are in high demand due to the lack of qualified personnel to replace the ones leaving the field. Most MLT's are employed in city or county hospitals or medical centers, but other positions may include doctor's offices, industry, medical sales, and veterinary clinics.

Advancements are limited for MLT graduates without further education and training. Ambitious individuals can use work experience and/or college courses to satisfy requirements for higher level certification. Higher level certification can lead to advancement in the laboratory. Madisonville Community College works closely with the University of Kentucky Medical Laboratory Science program to provide a relatively seamless transfer for students who decide to pursue a Bachelor’s degree. Other programs are available, both online and in-person, and the

pre-requisite courses and/or work experience required varies by school. If a student in the MLT program at MCC is interested in transfer, the MLT Program Coordinator can provide information about other BS MLS programs.

ADVISORY COMMITTEE

The Medical Laboratory Technician program has an active advisory committee providing guidance in curriculum and skill needs. The committee meets formally in the Fall AND Spring Semesters. Informal meetings are held as needs arise. A student will be selected to serve as a representative of the class for each advisory committee meeting. The members of the advisory board consist of instructors, medical laboratory professionals from clinical affiliate sites, a parent, and a student representative.

RECRUITMENT

Madisonville Community College actively participates in job fairs, college fairs, and health fairs in the surrounding areas to inform the public of the various programs offered by our institutions. Student participation is encouraged. Social media is used as well to promote the program and the field of medical laboratory science.

GRADING SCALE

- The grading system is as follows:

91.5-100%	= A
83.5-91.49%	= B
75.0-83.49%	= C
<75.0%	= E

- A grade of "C" or better in each course shall be a prerequisite for meeting promotion.

- **If a student is having academic problems (failing tests, etc), it is the responsibility of the student to contact the instructor**. Academic probation will automatically result if the student does not maintain a "C" average in each MLT or PHB course. Two consecutive or concurrent probations (or two consecutive or concurrent grades less than a "C") will result for termination from the program.

- It is also the responsibility of the student to contact the instructor concerning make-up work and missed tests the day he/she returns to school following an absence. Failure to contact the instructor will result in a "zero" being given for the missed assignment or test.

- Official grade reports will be provided at the end of each semester. A student making unsatisfactory progress (less than a 75% in any course or section) will be counseled and placed on academic probation for the next grading period.

- **Must achieve a "C" or above in PHB 170 and PHB 152** to continue in the MLT program.

STUDENT ORGANIZATIONS

Student organizations are an integral part of your collegiate experience. Examples of student organizations are as follows:

- **HOSA (Health Occupation Students of America)** is a national organization for students enrolled in health care educational programs. The Health Campus has an active HOSA chapter with goals to help our students develop physical, mental, and social well being, leadership, ethical practice, and respect for the dignity of work. The MCC faculty and administration serve as advisors and encourage student involvement.
- **Phi Theta Kappa National Honor Society.** This nomination is based largely on their scholastic standing. Other factors are considered in election to this prestigious Society.
- **Other student organizations not catered to health care students are active at MCC.** For more information on these organizations, please visit https://madisonville.kctcs.edu/about/student-life/activities-organizations.aspx
- **Professional organizations.** ASCP and ASCLS provide free or reduced price memberships to students. Go to www.ascp.org or www.ascls.org for more information about these programs.

ATTENDANCE

It is the philosophy of the school to plan a curriculum for the average student to successfully accomplish the MLT course work in approximately 4 semesters, therefore excessive absences will be detrimental to the student's ability to meet the requirements in both theory and clinical courses. It is also the purpose of the faculty to aid the student in maintaining or establishing habits which are acceptable to future employers.

- It is the responsibility of each student to report to the classroom by the designated time.
- **During classroom instruction, each course has a limit of two (2) absences. If a student misses more than two classes, or is tardy (late, leave early, etc.) more than four (4) times in a course, they are at risk for dismissal from the MLT program.**
- Once clinical rotations begin, it will be the responsibility of the student to report to their designated clinical rotation on time.
- All appointments, including Doctor and Dentist should be made at times other than school hours.

- Tardiness and Absences should be avoided. During clinical rotations, any absenteeism should be reported to your clinical instructor, as well as the program director, before scheduled time.
- There will be no make up time for absenteeism in the classroom labs.
- There are no excused absences from the clinical rotation schedule. Any time missed from an assignment must be made up. If the time is not made up, the student will not receive a passing grade for the clinical class component. The student is allowed a 10% absence from a clinical rotation which can be made up at the discretion of the clinical instructor. Absenteeism greater than 10% results in an "E" for the rotation and the student will have to repeat the rotation at another time as determined by the program director.
- Following an absence, it is the responsibility of the student to contact the instructor concerning make-up work and missed tests the day he/she returns to school. ***The student is expected to complete tests by the assigned dates. Failure to do so will result in the loss of 5 percentage points for each day late.***
- The instructor shall report to their division chair or designee the name of any student not making satisfactory progress in class due to irregular attendance. The student may be dropped from the course if: a reasonable time of counseling support has been given and he/she continues to fail to make satisfactory progress.

Inclement Weather:

- If classes at Madisonville Community College are canceled due to inclement weather conditions, coursework will be reassigned as necessary.
- If classes at Madisonville Community College are canceled due to inclement weather conditions, clinical rotations will be rescheduled whenever possible.
- Even if classes are not officially cancelled, do not come to class or clinicals if you feel the conditions are hazardous to your safety, or if the college is closed.
- **Students not reporting to class or clinicals due to bad weather are still required to call the Clinical site and Program Director an hour before they are to report.**

DRESS CODE FOR CLINICALS

THE FOLLOWING GUIDELINES ARE IN COMPLIANCE WITH OUR CLINICAL AFFILIATES AND WILL BE ENFORCED.

- **Hair must be well controlled.** Hair shoulder length or longer must be pulled back and fastened. No extreme hair styles or coloring will be permitted. **Males:** Hair is to be neatly cut to a professional length (off the collar). Beards and mustaches are permitted but must be neat and trimmed short.
- **Uniform**. Appropriate colored scrubs as determined by instructor. No jeans or sweats. T-shirts designated as "under-wear" will be prohibited. Dress uniforms must be no shorter than one inch (1") above the knee. Pant legs should hang to within one inch of

the floor. Uniforms will be clean and pressed daily. Hose or socks are to be worn as a part of the uniform. White hose are not required but socks are to be solid white.

- **ID badges** are to be worn at all times. If the name pin is lost, replacements must be ordered immediately from the office.
- **Shoes** are to be clean and in good repair. Shoes should be leather with closed toes. Shoes with breathable fabric, such as mesh, should not be worn in the laboratory as it poses a risk of exposure to blood and other fluids if spilled on the shoes. Laces should be laundered frequently. Moderate heeled, tie shoes with support are recommended for comfort.
- **Jewelry** allowed with the uniform is wedding and/or engagement ring. If the female student has pierced ears, only small gold or white gold studs or loops may be worn. No other jewelry should be visible. (This includes body piercing other than the ear.) **Depending on the facility, MALES** may not be allowed to wear earrings in the clinical area.
- ***ONE*** long sleeve, fluid resistant **lab coat is required. The MLT laboratory has several donated lab coats that are laundered at the school, so students are not required to purchase their own unless desired**. The student will be required to wear a lab coat at all times during lab procedures and clinicals. Clinical facilities will provide you with a lab coat to use while in their facility.

- **Make-up** must be worn in moderation. Excessive make-up will be grounds for being dismissed from clinicals.
- **Fingernails** are to be kept relatively short as gloves will be worn when handling all specimens and during all labs. Long fingernails tend to puncture the tips of the gloves leaving you vulnerable to potential biohazards. **Artificial nails will not be allowed in lab or while attending clinicals**. They are known carriers of microorganisms and make the wearer more susceptible to microorganisms.
- **Protective glasses and/or safety clothing** are to be worn when caustic or otherwise hazardous materials are to be handled by the student or when observing a technician or technologist. Gloves are to be worn at all times when handling body fluids (blood, urine, spinal fluids, etc.). The student is also required to wear goggles or work behind a safety shield when handling body fluids to protect from possible aerosols or splashing.
- **Good personal hygiene and neat appearanc**e are to be maintained at all time by daily bathing, frequent hair shampooing and use of deodorants. Failure to adhere to this could result in dismissal for the day.
- **Tattoos must be covered while at the clinical site, unless the site has a policy allowing tattoos to show under the uniform.**

DRESS CODE FOR CLASSROOM LAB

- **Hair must be well controlled.** Hair shoulder length or longer must be pulled back and fastened. No extreme hair styles or coloring will be permitted. **Males:** Hair is to be neatly cut to a professional length (off the collar). Beards and mustaches are permitted but must be neat and trimmed short.
- **Fluid resistant lab coats** with enclosed wrists that reach mid thigh in length will be worn for all labs. Lab coats used for classroom lab are not to be used for drawing blood on patients.
- **Goggles or glasses** will be worn at all times during the laboratory experience.
- **Long pants and leathered enclosed shoes** will be worn on lab days.

Students will be sent home and an absence recorded for failure to abide by these rules and will be counted absent.

GENERAL RULES OF CONDUCT

Students enrolled in the program are entitled to an educational environment free from discrimination, harassment in any form, and intimidation. Students are expected to maintain accepted standards of conduct which includes: courtesy, honesty, respect for the rights of others and orderly behavior and compliance with established college policy. In an effort to ensure an environment conducive to learning, the college has an established code that is expected to be followed by all students (refer to the Community College Code of Student Conduct). Students who fail to do so will be subject to disciplinary action.

CLASSROOM AND LABORATORY ETIQUETTE

All students are expected to be responsible for maintaining a pleasant and safe classroom and laboratory environment.

- Classes are conducted on an informal basis. Students are expected to participate. A student will not be allowed to control discussion and is expected to accept responsibility to make appropriate, meaningful contributions to class discussions. Students should observe their schedule and read appropriate text material before class.
- The student is expected to be alert and attentive in class. The instructor is privileged to ask a student to leave class if the individual is inattentive or disruptive. The student will be recorded as absent and the time is subject to make-up at the discretion of the instructor.
- Students are responsible for all information discussed in the classroom, laboratory and clinical areas.
- **No EATING** is permitted in the classroom laboratory or clinical areas. Breaks are scheduled to satisfy these necessities. This includes chewing gum.
- **SMOKING (or the use of any tobacco products)** is not permitted on any MCC Campus.
- **Cell phones** are to be turned off or on silent and not visible during classroom lecture and will not be allowed in the lab or clinicals.

- Eating and drinking in the classroom is at the discretion of the instructor. Students are responsible for cleaning up after themselves. Any problems will result in the privilege being revoked. Food and drinks are ***not*** allowed in the laboratory.
- Students should not attempt to operate any equipment until they have received appropriate instruction for its use.
- When using equipment, please treat it kindly.
- All supplies such as reagents should be returned to the appropriate storage area at the end of laboratory sessions.
- All unsafe or malfunctioning equipment should be reported to the instructor immediately so it may be repaired or taken out of service.
- Manual and text guidelines for safety should be followed when handling equipment, reagents, and blood specimens used in lab.
- Lab benches should be cleaned at the end of laboratory sessions.

DUE PROCESS/PROGRAM GRIEVANCE

- The program respects the student's right to grievance or appeal decision, which they perceive to be unfair.
- The program follows the College's Academic Appeals Policy found in the KCTCS Code of Student Conduct.
- Refer to the KCTCS Code of Student Conduct for the detailed steps to follow, located at the last section of this handbook or can be accessed at: http://www.kctcs.edu/student/code.htm

TERMINATION

The following actions will result in termination from the program:

- Misuse or destruction of school or hospital property.
- Two consecutive or concurrent grades of less than a "C" average.
- Excessive unexcused absence or tardiness.
- Cheating, lying or theft.
- Unprofessional conduct especially breach of CONFIDENTIALITY.
- Malpractice or unsafe practice.
- Objectionable behavior with patients or staff.
- Use of dangerous drugs or alcohol.

PARKING

Parking is provided at the school. Please use any available parking space except those designated as Handicap, Staff or Visitor. You will receive a warning for parking in an unauthorized space. Repetition of unauthorized parking will result in your car being towed at your expense.

CLINICAL AFFILIATES OF THE MCC MLT PROGRAM

Madisonville Affiliates

Baptist Health Madisonville *900 Hospital Drive* *Madisonville, KY 42431* *(270) 825-5100*	**Jennie Stuart Medical Center** *320 W 18th Street* *Hopkinsville, KY 42240* *(270) 887-0100*
Owensboro Health Muhlenberg Community Hospital *440 Hopkinsville St.* *Greenville, KY 42345* *(270)338-8000*	**Trigg County Hospital** *254 Main St.* *Cadiz, KY 42211* *(270)522-3215*

Other clinical facilities in the area might be used at the discretion of the Program Coordinator in the event of increased enrollment in the program.

GENERAL POLICIES

- Students are to remain in the area of the hospital or clinic to which they are assigned. Travel is to be limited to the cafeteria, snack bar, gift shop, etc. unless it is to obtain patient specimens. Indiscriminate wandering through or the exploring of the hospital is not permitted.
- Students wishing to visit a patient in the hospital must do so during breaks or lunch.
- Telephones provided in the clinical affiliates are for official use. Personal calls are to be limited and brief in time. Excessive use for personal calls will result in the discontinuance of telephone use by students. Cell phones are not allowed in the clinical area.
- No photographing is allowed in the clinical site.
- **Social media documentation of clinical experiences is not allowed and will result in immediate dismissal from the program**.
- Non-emergency calls to the student during clinical phase or pre-clinical phase are discouraged.
- The Clinical Affiliates in cooperation with the MCC Program Coordinators will assign experiences for the educational benefit of the student, and students will not be assigned in such a manner that permits replacement of a regular employee.
- The maximum time (classroom and clinical) scheduled for an individual student will not exceed eight (8) hours per day excluding time for meals, unless permission is granted from the preceptor and the Program Coordinator. Some clinical site employees work

twelve hour shifts, and students may be permitted to do so as well with the proper permission and as long as the required amount of hours per rotation are successfully completed.

CLINICAL EXPERIENCE

The excellence of the MLT program stems from the efforts and abilities of our administration, faculty, advisory committee and clinical sites. This cooperation enhances the learning experience of the students and thus their quality of skills and knowledge.

MLT program students will be placed in clinical rotations through each department of the clinical lab. These clinical rotations involve work experiences designed to help the student develop skills needed for future employment. The Program Director at MCC with the cooperation from supervisors in the various departments of the lab will evaluate the progress of the students. The expertise of the various supervisors enhances the learning experience of the students in the quality of skills and knowledge gained from this experience. The clinical preceptors are voluntary faculty for the program and are due the utmost respect and consideration by the students.

CLINICAL EVALUATION

The student is evaluated at the completion of each clinical rotation by the appropriate clinical preceptor. A student is evaluated on performance skills, professional attitude, psychomotor skills, didactic performance, and attendance. Each evaluation includes a task list of skills expected for the specific clinical rotation. Visits to the clinical sites (at least one per rotation) by the Program Director are performed to track student performance. If issues arise, preceptors are encouraged to contact the Program Director to help improve the issue. All evaluations and grades are kept in the students' records.

TECHNICAL STANDARDS OR ESSENTIALS FOR THE PROGRAM

The ***Medical Laboratory Technician*** specializes in the application of scientific knowledge and theory in the skillful performance of medical laboratory functions. Therefore, all applicants should possess:

1. Sufficient visual acuity and color perception, such as in needed to perform microscopic examinations, to distinguish color reactions, and to detect antigen- antibody reactions.
2. Sufficient gross and fine motor coordination to efficiently implement the skills required in performing laboratory functions, including collection of specimens and manipulation of laboratory equipment, such as glassware and electronic instruments.

3. Sufficient communication skills (verbal, non-verbal and written) to interact effectively with individuals.
4. Sufficient intellectual, emotional, and physical functions to plan and implement laboratory duties in a responsible manner.

Acknowledgement
The MLT Handbook is written by the Program Director in conjunction with Madisonville Community College's Policies and Procedures, the Standards as outlined by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), the Clinical Affiliates Policies and Procedures; and input from the MLT Advisory Committee and Clinical Preceptors.

The Medical Laboratory Technology program at Madisonville Community College is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 North River Road, Suite 720, Rosemont, IL60018-5119; (773) 714-8880 or (847) 939-3597; http://www.naacls.org.

MADISONVILLE COMMUNITY COLLEGE
MEDICAL LABORATORY TECHNICIAN PROGRAM
STATEMENT OF UNDERSTANDING

I, _____, by signing this statement of understanding, do hereby represent that I have read and understand the information presented in the MLT Student Handbook and accept them as conditions of my student experience in the Medical Laboratory Technician program.

_____
STUDENT SIGNATURE and DATE

_____
STUDENT NAME (PRINT)

_____
WITNESS SIGNATURE and Date