Medical Laboratory Technician Program

STUDENT MANUAL
This Manual Has Undergone Legal Review

Revised May, 2015
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INTRODUCTION

The purpose of this manual is to give you information you will need throughout the Medical Laboratory Technician Program. This manual is intended as a supplement to the College Catalog and website and does not negate the information they contain. When policy is not specifically mentioned in this manual, the College policy applies. As new policies or procedures are instituted, you will be notified.

Please keep this manual for your reference. As you receive additional information, attach it to the manual. If you have questions at any time, please see the Program Director.
GENERAL INFORMATION

ACCREDITATION

The Montgomery County Community College Medical Laboratory Technician Program is fully accredited as of April 21, 1982 by the Committee on Allied Health Education and Accreditation of the American Medical Association. The accreditation is now awarded by the National Accrediting Agency for Clinical Laboratory Sciences. The Program was most recently awarded continuing accreditation for seven years on October 31, 2013.

Accreditation is a regulatory process designed to monitor the quality of an educational program. Students attending accredited programs have some assurance that their education is an appropriate means of meeting their career objectives. Graduation from an accredited program or institution is a requirement of most examinations which certify laboratory personnel.

NAACLS is a nonprofit organization that independently accredits doctorate in clinical laboratory science (DCLS), medical laboratory scientist (MLS), medical laboratory technician (MLT), histotechnologist (HTL), histotechnician (HT), pathologists' assistant (PathA), cytogenetic technologist (CG) and diagnostic molecular scientist (DMS) educational programs. NAACLS also independently approves phlebotomist (PBT) and clinical assistant (CA) educational programs.¹ NAACLS can be contacted at 5600 N. River Road, Suite 720, Rosemont, IL 60018 (773-714-8880), www.naacls.org.

PROGRAM ORGANIZATION

The Medical Laboratory Technician Program is sponsored by Montgomery County Community College which is empowered to confer an AAS degree upon students who satisfactorily complete the required curriculum. The College cooperates with seven area hospitals and one commercial laboratory: Abington Memorial Hospital, Einstein Medical Center Montgomery, Grand View Hospital, Mercy Fitzgerald Hospital, Mercy Suburban Hospital, Pottstown Memorial Medical Center, Quest Diagnostic Laboratories and Holy Redeemer Hospital to provide students with clinical learning experiences. These affiliations are formalized by legal contracts between the College and each laboratory. A copy of each contract is on file, reviewed annually and available for inspection upon request.

The program faculty consists of a Program Director responsible for overall administration of the Program; two full-time faculty members who teach two or more courses and supervises the on-site laboratory; and part-time instructor(s) responsible for instruction in their area(s) of expertise. Each laboratory has designated a certified Medical Technologist to be a Clinical Site Liaison who is responsible for student activities in her laboratory. The Clinic Site Liaisons are employed by the laboratory but report to the Program Director on student-related matters. Laboratory personnel designated as Clinical Instructors teach students during clinical practica.

FACULTY

The Program Director is Debra Lynn Eckman, M.S., MT (ASCP). The Director's office is located in the Science Center, Room 340. The telephone number is 215-641-6487. This telephone is attached to an answering machine. The email address is deckman@mc3.edu.

¹ Guide to Accreditation, NAACLS. September 2013.
The full-time faculty member is Debra Eckman, MS, MT (ASCP). Her office is Science Center Room 340 and her phone # is 216-641-6487. Her teaching areas are a course entitled, Introduction to Medical Laboratory Technology, Clinical Chemistry Laboratory, Immunohematology Lecture and Laboratory Professional Issues in MLT and MLT Seminar.

The second full-time faculty member is Kathleen Perlmutter, MBA, MT (ASCP). Her office is Science Center, Room 338 and her phone number is 215-641-6465. Her teaching responsibilities include, Clinical Chemistry Lecture & Laboratory, Hematology Lecture & Laboratory and Phlebotomy.

Part-time instructors are appointed on a semester basis. Current part-time faculty members and their teaching responsibilities are:

Joyce Hill, B.S., MT (ASCP) - Hematology Lab, Intro to MLT, Professional Issues

The MLT microbiology courses are taught by instructors in the biology department.

The Medical Director is Irwin Hollander, M.D. He may be reached at Grand View Hospital, telephone number 215-453-4680.

The MLT Department office is located in the Science Center, Room 339. The office is staffed with a full-time secretary, Sonya Latimore, whose telephone number is 215-641-6437.

CLINICAL AFFILIATES

Grand View Hospital
700 Lawn Avenue
Sellersville, PA 18960
Telephone: 215-257-3611

Clinic Site Liaison: Barbara Giannini, BS, MT (ASCP)
Laboratory Director: Dr. Irwin Hollander

Einstein Medical Center Montgomery
559 W. Germantown Pike
East Norriton, PA 19403
Telephone: 484-622-1453

Clinic Site Liaison: Toni Summers, MT (ASCP)
Laboratory Director: Dr. Paul Belser

Pottstown Memorial Medical Center
1600 East High Street
Pottstown, PA 19464
Telephone: 610-327-7000

Clinic Site Liaison: Jamie Boyer, MT (ASCP)
Laboratory Director: Dr. Dante DiMarzio

Quest Diagnostic Laboratories
900 Business Center Drive
Horsham, PA 19044
Telephone: 215-442-7655

Clinic Site Liaison: Marianne Staats, BA, MLT (ASCP)
Managing Director: Mohammed Khan

Abington Memorial Hospital
1200 Old York Road
Abington, PA 19001-3788
Telephone: 215-481-4933

Clinic Site Liaison: Andrea Mealey, H MT (ASCP)
Laboratory Director: Dr. Herbert Auerbach

Holy Redeemer Hospital and Medical Center
1648 Huntingdon Pike
Meadowbrook, PA 19046
Telephone: 215-938-3650

Clinic Site Liaison: Marie Coverdale, MT (ASCP)
Laboratory Director: Dr. Pantelon Fagel
COMMUNICATIONS

There are mailboxes for students and faculty in the MLT offices for exchange of written communication, messages, assignments, etc. The file cabinet which contains the mailboxes is locked when classes are not in session. Students who wish to speak with faculty members for an extended length of time may make an appointment either directly with the faculty member or through the Department Secretary. There is a MLT bulletin board in the hallway opposite Room 337 on which will be posted messages from faculty, certification exam and job opening announcements, etc. Students should make a habit of checking the board frequently.

PROFESSIONAL DEVELOPMENT

Professional development is an integral part of the MLT curriculum. Clear guidelines are communicated to students so that their behavior conforms to standards of professional practice. (See Appendix B, Affective Competencies.)

Students are expected to respect the confidentiality of information. Personal confidences and private information concerning patients and obtained while practicing or studying laboratory medicine must be regarded as privileged communication. Abuse of this privilege is unethical.

Students may not accept gratuities or gifts for any services rendered.

Solicitation in the laboratory (on campus or at hospitals) is prohibited.

PLEDGE TO THE PROFESSION

As a clinical laboratory professional, I strive to:

- Maintain and promote standards of excellence in performing and advancing the art and science of my profession
- Preserve the dignity and privacy of others
- Uphold and maintain the dignity and respect of our profession
- Seek to establish cooperative and respectful working relationships with other health professionals
- Contribute to the general well being of the community

I will actively demonstrate my commitment to these responsibilities throughout my professional life.

(The American Society for Clinical Laboratory Science)
ESSENTIAL FUNCTIONS

In addition to the academic admission requirements for students entering the MLT Program, the following Essential Functions are also expected of all students:

- Students must be able to visualize objects through a microscope and differentiate color, shape and structure of organisms and cells. Students must be able to detect color changes on reagent strips and during chemical analyses.
- Students must possess sufficient motor skills and manual dexterity to obtain and manipulate specimens, reagents, glassware, instruments and equipment with accuracy, speed and precision in such a manner that does not endanger themselves and others.
- Students must possess effective written and oral communication skills in order to accurately transmit information to patients, physicians and other healthcare professionals. Students must possess the ability to read and write in English.
- Students must demonstrate professional attitudes and behaviors. Students must be able to use reasonable judgment under stressful conditions to make decisions that impact patient care. Students must be able to work independently as a member of a team to maintain the highest standards in the delivery of patient care.
- Students must be able to move easily from one location to another in the Laboratory to do testing and through patient areas to perform phlebotomy.

Students must be able to fulfill these essential functions of the job without endangering patients or other health care workers. Students with disabilities may be eligible for accommodations. Prior to the start of the Program, students may contact the Director of Services for Students with Disabilities in the Disability Services Center, College Hall 225, at 215-641-6575 for more information. At the West Campus, contact the Coordinator of Disability Services in South Hall at 610-718-1853.

STUDENT ACADEMIC CODE OF ETHICS AND CODE OF CONDUCT


Students are expected to treat all members of the College community with dignity, respect, fairness and civility and to behave in a responsible manner at all times both in and outside the classroom. Please refer to the Student Code of Conduct. [http://www.mc3.edu/about-us/policies/125](http://www.mc3.edu/about-us/policies/125).
THE INSTRUCTIONAL PROGRAM

MISSION STATEMENT

It is the mission of the MLT Program to respond to the needs of the community by educating students to perform a wide variety of clinical laboratory procedures and prepare these students to perform competently as Medical Laboratory Technicians upon graduation.

PHILOSOPHY

Medical Laboratory Technicians must function in many different situations and at various levels of responsibility in increasingly complex laboratories. In order to provide students with the greatest potential for effective performance and professional growth, traditional academic courses and specialized laboratory courses are integrated into a total educational experience.

GENERAL OBJECTIVES/GOALS

The MLT Program is designed to prepare graduates who can

- collect and prepare clinical specimens for analysis
- operate, perform quality control and maintain laboratory instruments
- perform a variety of diagnostic analyses according to prescribed methodology
- monitor and assess the quality of data generated
- recognize problems which may occur during testing and perform basic repair on laboratory equipment
- describe principles, reactions, and reagents for each method studied
- relate test results to other patient information to the extent required for understanding the analyses
- demonstrate behavior and attitudes consistent with those of laboratory professionals

Specific learning objectives for each course, lesson and clinic assignment are derived from these general objectives and the Statements of Competence. (See Appendices C-G.)

CURRICULUM

The MLT curriculum is planned as a comprehensive program in which the clinical and didactic components are coordinated in a cumulative four-semester experience. Credit is awarded for a combination of liberal arts courses, basic science courses, clinical laboratory science courses and hospital laboratory experience. Students are referred to the current college catalog for detailed program and course descriptions. Students must complete the course of study outlined in the catalog in effect during the semester in which they were admitted to the program. Substitution of required courses is by permission of the Program Director only.

Completion of the program via part-time study is possible, and is especially desirable for students who must work or who have family obligations. It is recommended that in this case students take general education courses prior to enrolling in the MLT courses to extend the curriculum over a greater number of semesters.
The curriculum is a closely structured unit combining sequential and cumulative courses with non-traditional clinical experience. Because of this structure, it is strongly recommended that students anticipate completing their MLT courses in the four consecutive semesters immediately preceding their application for certification. For students whose progression through the MLT courses is interrupted by academic (see Policy on Program Dismissal) or personal difficulties, there is no guarantee that space will be available when they want or are allowed to return. Students are urged to balance their academic abilities with their financial needs when planning their studies. MLT Faculty are available to advise students. Employment during the academic year is strongly discouraged because of the difficulty of the curriculum.

COMMUNITY SERVICE

Each semester during enrollment in the MLT Program, students will be required to take part in a minimum of 2 hours per semester of community service work. Service to the community is a valued attribute of laboratory professionals. There are ample opportunities to meet this requirement by participating in special health events that occur on the College campus. Should a student choose, or not be able, to participate in College opportunities, they may complete their required 2 hours of community service in other laboratory related activities. Students choosing this option must receive permission, in advance, from the Program Director. Students who fail to complete these hours will drop one letter grade in ALL MLT courses in which they are enrolled for that particular semester.

SERVICE AS CLINICAL SUBJECTS

Students in MLT courses may occasionally be required to act as subjects for laboratory tests such as venipuncture, capillary puncture, bleeding time, and urinalysis. Only students with documented medical reasons will be excused from such practice. Students who refuse to participate will incur lowered grades.

CLINIC PROGRESSION

Clinical places have always been available for all students who enrolled in the MLT Program. Students who have progressed to the sophomore year without interruption in course sequence or timeframe due to academic or personal difficulties have always, in the past, been assured of placement at the clinic. The number of clinical places available depends upon the capacity of the laboratories at the affiliated hospitals. Every attempt will be made to place students at an affiliated hospital for the sophomore year. For students whose progression was interrupted by academic or personal difficulties, they will be placed in sophomore clinic if a clinic position is available. First priority goes to those students who have progressed to the sophomore year without interruption. Second semester clinic sophomores return to school one week earlier in January than other students. Students will visit a series of enrichment sites throughout this semester.

CLINIC ASSIGNMENT GUIDELINES

If the number of students who are eligible for clinic exceeds the number of clinic site seats available during a given academic year, students will be ranked and assigned using the following criteria:

1. Full-time students will be given priority over part-time students.

2. Grade point average – those with higher grade point averages will be given preference over those meeting the minimum matriculation requirements.
3. Number of credits completed within the MLT curriculum – those with the greatest number will be given priority.

4. Length of time students are on wait list for clinical practicum – students on the waitlist for a longer period of time will be given preference.

TRANSFER

This curriculum is designed as a two-year terminal degree career program. Students who anticipate transferring to upper division programs should see an advisor as soon as possible to discuss the transferability of credits. Information about upper-level CLS programs is available in the MLT office, in the Student Success Center in College Hall, and presented in a seminar as part of the curriculum.

POLICY ON PROGRAM DISMISSAL

Effective Fall, 1992
Revised May, 2007

This policy applies to the following courses:

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>MLT110</td>
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<td>MLT126</td>
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<td>MLT235</td>
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<td>MLT246</td>
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<td>BIO130</td>
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<td>MLT123</td>
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<td>MLT233</td>
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<td>MLT244</td>
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<td>CHE131</td>
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<td>BIO141</td>
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<td>MLT234</td>
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<td>MLT245</td>
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<tr>
<td>CHE132</td>
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<tr>
<td>BIO241</td>
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<tr>
<td>MLT125</td>
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1. If a student receives a grade of less than "C"*, the student must repeat the course and earn a grade of "C" or better. No course may be taken more than two times without permission of the Program Director.

2. If a student receives two grades of less than "C"*, the student will be dismissed from the program due to unsatisfactory academic performance.

* A "W" will be treated as a grade less than "C" if at the time of withdrawal the student was earning a grade less than "C".

A student will only be considered for readmission to the program upon written request to the Program Director.

Students must complete the MLT program within four academic years once they are admitted into MLT 110.
NON-ACADEMIC POLICIES

SAFETY

Because students will be exposed to a variety of hazards (e.g., infectious agents, chemicals, etc.) throughout the program, safety is heavily emphasized in course instruction. Through proper education, risks to students are minimized. Students who have questions about the risk of AIDS, hepatitis, etc. should contact the faculty. **Students are responsible for purchasing safety goggles.** (See Appendix P for Program Safety Procedures.)

Students are responsible for knowing and following all laboratory safety procedures both at the College and at the Clinic Site as long as they are enrolled in the Program. Safety is taught as part of the curriculum. Procedures unique to a clinic site, such as those for isolation rooms or nurseries, are taught at the clinical site. **Students must speak English in the student laboratory or clinical site at all times so that instructors can assist students quickly in an emergency.**

LABORATORY ACCIDENTS

Anyone involved in a laboratory accident must document the incident. A standard accident report form must be completed. Forms are available in the MLT office. Accident reports must be returned to the Program Director who will then contact Public Safety. Students will be provided information on baseline testing, treatment, etc. related to the exposure. All accident report forms are filed in the student file in the MLT office and the office of Public Safety.

Students are expected to report all injuries involving biohazardous materials. The person supervising the student will provide first aid and contact the Program Director who will carry out the procedures established in the “Student, Employee and Patient Occupational Exposure Policy.” A copy of this Plan will be distributed to each student during orientation. Students will sign an acknowledgement form indicating they have received a copy of this document. The acknowledgement form will be kept in their files. Every effort will be made to assure confidentiality of records. Information will be released only when appropriate authorization is obtained.

LIABILITY INSURANCE

Students are required to purchase professional liability insurance and to show proof of coverage for each semester they are registered in MLT clinical courses. Information and applications are provided to students beginning their sophomore year by the Program Director during the summer prior to the start of MLT 235.

UNIFORMS

Uniforms must be worn for all MLT laboratory courses on campus, in the clinical site, during all enrichment site visits and at community service activities. MLT students will wear a standard uniform of black scrub pants and tops. The goal remains to ensure that MLT student attire reflects the tradition of “professional appearance” and recognizes the current attire in most clinical laboratories.

All-white sweaters only may be worn over uniforms; in all cases, a lab coat must be worn as the outermost garment. Students must purchase lab coats and scrubs from MP Nursing Apparel. Lab coats must extend to the knee.

All garments will be personalized to include the student’s full name and program of study.

All students are required to wear white leather shoes. Shoes must be of oxford or moccasin type. No open-toe, backless, sandal styles or clogs are permitted.
CHILD ABUSE HISTORY CLEARANCE AND CRIMINAL RECORD CHECKS POLICY

I. Policy

The Health Sciences Division is committed to providing meaningful experiential learning opportunities for all students enrolled in its Health Programs as a means to reinforce discipline specific knowledge and assist in developing appropriate professional skills and attributes. To this end the Health Programs enter into agreements with various persons and agencies to assist in providing student learning opportunities. A component of these agreements requires maintenance of student records regarding Child Abuse History Clearance, Pennsylvania Criminal Record Check, and FBI Criminal History Background Check.

II. Procedure

A. Students submit evidence of a Child Abuse History Clearance, Pennsylvania Criminal Record Check, and FBI Criminal History Background Check to the discipline specific Program Office as described in the discipline specific Program Handbook.

B. The Child Abuse History Clearance
   1. The student will complete a Pennsylvania Child Abuse History Clearance application and submit the original Child Abuse History Clearance report to the Program Office where it will be placed in the student's file.
      a. On-line format (recommended)
         i. https://www.compass.state.pa.us/CWIS
         ii. Create an account, follow online instructions and complete # 10, Purpose for Clearance, section C checking School Employee box.
         OR
      b. Paper format
         i. Identify all information in Section 1 of the document
         ii. Enclose the required money order
   2. A positive Child Abuse History Clearance report will exclude a student from participation in the clinical component of a Health Program at Montgomery County Community College regardless of when the offense occurred.

C. The Pennsylvania Criminal Record Check
   1. The student will complete a Pennsylvania State Police Request for Criminal Record Check via:
      a. On-line format (recommended)
         i. https://epatch.state.pa.us/Home.jsp
         ii. Submit Record Check Status page from website to the identified Health Program
         iii. If record exists, submit information provided by State Police to the specific Program office
OR

b. Paper format
   i. Identify all information requested in Part I of the Request
   ii. Enclose the required certified check or money order
   iii. Document will be mailed directly to the identified Health Program

D. FBI Criminal History Background Check

In addition to the Pennsylvania Criminal Record Check, students complete an FBI Criminal History Background Check.

1. Students can utilize the Cogent Systems to process fingerprint-based FBI Criminal History Background checks, as is the required by the Department of Public Welfare.
2. The fingerprint-based criminal history background check is a multiple step process.
3. The Cogent Systems Web site www.pa.cogentid.com allows individuals to apply online, as well as provide detailed information regarding the application process.
4. Original Department of Welfare certification must be submitted to the identified Program Office.
5. There is a cost to obtain the FBI Criminal History Background Check.

E. Submission of a negative Child Abuse History Clearance report, and Pennsylvania Criminal Record and FBI Criminal History Background checks free of offenses, to the Health Program by its identified due date, results in criminal clearance for clinically based learning opportunities in the specific Health Program.

F. The Pennsylvania Older Adults Protective Services Act identifies offenses that make a person ineligible for employment as a Health Care Provider. A Criminal Record check that discloses these offenses, regardless of the date, will prohibit a student from participating in the clinical component of a Health Program at Montgomery County Community College. Refer to http://www.portal.state.pa.us/portal/server.pt?open=514&objID=616725&mode=2 for description of Act 169 and criminal offenses that make a person ineligible for employment as a Health Care Provider.

G. If you are found to have a history of offense(s) as identified in the Pennsylvania Criminal Record Check, FBI Criminal History Background Check and/or Child Abuse History Clearance, you will be denied participation in any clinical courses, thus withdrawing you from the Program. An offense committed since the Child Abuse History Clearance, Criminal Record and FBI Criminal History Background checks were completed and submitted to the Health Program, will also result in immediate removal from the Program. There is no statute of limitations. If you have a potential concern regarding this requirement, contact your Program Director to discuss this matter in confidence.
H. The Child Abuse History Clearance, Pennsylvania Criminal Record and FBI Criminal History Background checks documents must be current while the student is enrolled in the Health Program and are required to be updated annually. The original Child Abuse History Clearance, Pennsylvania Criminal Record Check and FBI Criminal History Background Check reports should be submitted to the appropriate Program Office and will be placed in the student’s file.

I. It is the student’s responsibility to immediately notify the Program Director of any events or changes in the Child Abuse History Clearance, Pennsylvania Criminal Record, and FBI Criminal History Background Check which may affect continued eligibility to participate in the clinical component of the Health Program.

J. A student with a potential concern regarding the Child Abuse History Clearance, Pennsylvania Criminal Record Check, and FBI Criminal History Background Check, is encouraged to contact the discipline specific Health Program Director to discuss the matter in confidence.

PERSONAL CARE

Conservative habits are essential. Use of cosmetics is restricted to those suitable for daytime wear in a hospital. Use of jewelry is limited to watches, wedding/engagement rings and button earrings. Hair longer than shoulder length or hair which falls onto working materials must be tied back. Beards must be short. Nails must be kept short and only clear/light-colored polish may be used. No false nails are permitted.

Students should take extra precautions to guard against body odors, clothing odors (due to cigarette smoke or other causes), or bad breath since these can be unpleasant for patients as well as co-workers.

The following are prohibited in the student laboratory, in clinic, at enrichment site visits and during community service activities: Tongue rings, any facial jewelry, and gauges. All tattoos MUST be covered at all times.

*When a clinical site has a dress code more restrictive than this policy, the student is expected to adhere to the more restrictive code.
ATTENDANCE

Attendance is required at and recorded for all scheduled instructional periods. (An instructional period is defined as any scheduled class, student laboratory, clinic assignment, review day, or enrichment site visit). Students absent for medical reasons may be expected to furnish a note from a physician. If a student misses more than three clinic days during MLT 235, they will be required to withdraw from the course. If a student is late more than three times during MLT 235, they will be required to withdraw from the course. (Each clinic site will define lateness.) If a student misses more than one day or is late more than three times during a rotation of MLT 245, the student will be required to withdraw from the course. A rotation is defined as, for example, hematology. Students are not excused from tests because of absence. There may be no provision for making up work missed due to absence.

Absences due to extraordinary circumstances will be evaluated on an individual basis provided that students inform the faculty.

STUDENTS ARE EXPECTED TO NOTIFY INSTRUCTORS AT THE COLLEGE (215-641-6487) AND CLINIC OF ANTICIPATED ABSENCE AS SOON AS POSSIBLE AND TO FURNISH A REASON.

WEATHER EMERGENCY

Students are expected to be present for all classes and clinic assignments, even in inclement weather, unless the College is closed. In the event of snow, students should listen for MCCC’s school number 320 for closing information. For class cancellation due to weather conditions or other emergency situations, listen to KYW 1060 AM, WNPV 1440 AM or WPAZ 1370 AM on the radio, check the home page of the College web site (www.mc3.edu) or call 215-641-6300 for Central Campus information and select option #1. You may also opt to have emergency notification sent via email or text messaging. To enroll visit http://www.mc3.edu/txt/. If College is one hour late – class starts on time. If College is two hours late – class starts at 10:00 a.m. Do not report to the clinic if the College is closed. If there is a delayed opening, students will report to class or clinical at the following times: 1 hour delay = 9:00 AM; 2 hour delay = 10:00 AM.

PROMPTNESS

All instructional periods begin promptly at the time scheduled. Students are expected to be seated and ready to participate in class at that time. All conditions which might delay students, such as weather, traffic, parking, elevators and lavatory visits should be considered when planning arrivals. Prompt return from breaks is also expected.

Students who arrive late are responsible for work missed. (See "Attendance" above.) The opportunity to make up quizzes missed because of lateness is at the instructor's discretion. Lateness at the College and Clinic is recorded in the student's files.

TRANSPORTATION

Transportation to all classes, clinical assignments and enrichment site visits is the responsibility of the student. It is recommended that students have the use of a car in good working order and have a plan of alternative transportation in case of car trouble. In general, car pooling may not be feasible for clinical assignments, and public transportation schedules are too infrequent to be reliable.
CELL PHONE USE

Students are required to silence all cell phones during class hours. Students who fail to do so will be given a warning for the first offense. Subsequent offenses will result in the students being asked to leave class when the offense occurs. Students who have three offenses during a semester will only be permitted to return to class after meeting with the Program Director. Students may request an exception to this policy for extenuating circumstances. The instructor, at his or her discretion, may approve this exception prior to class. Students should not make a habit of requesting exceptions to this policy.

HEALTH RECORDS POLICY

I. Policy

The Health Sciences Division is committed to providing meaningful experiential learning opportunities for all students enrolled in its Health Career Programs as a means to reinforce discipline specific knowledge and assist in developing appropriate professional skills and attributes. To this end the Health Career Programs enter into agreements with various persons and agencies to assist in providing student learning opportunities. A component of these agreements requires maintenance of student records regarding health status.

II. Procedure

A. Students submit the appropriate Physical Form to the individual Program office prior to the beginning of the semester. Physical Form A is completed and submitted at the beginning of the first year of study as per the Program’s direction and Physical Form B is submitted each subsequent year.

B. The Physical Form requires.....

1. Identifying Information and Health History, which is completed by the student. The Physician/Nurse Practitioner/Physician Assistant completes all other sections of the Physical Form.

2. Results of Tuberculosis Exposure Screening or chest x-ray.

3. A statement regarding ability to undertake the specified Health Career Program. A statement of limited cognitive/mental or physical activity must be followed by a detailed description.

4. Selected immunizations. Student must have begun the Hepatitis B series of injections and provide date of inoculation(s) or a signed Declination Statement waiver.

5. Urine drug screening with accompanying laboratory report. A negative finding is expected in order to be eligible for participation in the clinical component of the specified Health Career Program. A positive result requires retesting at a College designated site to ensure standardization of test results for all students.

C. Submission of a completed Physical Form with accompanying laboratory reports by the required due date results in health clearance for experiential learning opportunities in the specific Health Career Program.
D. Influenza Vaccination Documentation

1. **Enrolled Students:** Students enrolled in a Health Career Program each year submit the Influenza Vaccination Documentation form to the appropriate individual Program office at a date designated by the Program.

2. **Entering Students:** Students accepted to begin a Health Career Program in January submit the Influenza Vaccination Documentation form to the appropriate individual Program office at a date designated by the Program.

E. Students with disabilities may be eligible for reasonable accommodations. Prior to the start of the Program, please contact the Disability Services Center, College Hall 225, (215) 641-6575, for more information. At the West Campus, contact the Coordinator of Disability Services in the Student Success Center at (610) 718-1853.

IMPAIRED STUDENT PERFORMANCE IN THE LABORATORY AND/OR CLINICAL SETTING POLICY

I. **Policy**

The Division of Health Sciences is committed to providing safe and meaningful learning experiences for students and so must provide for the safe and effective care of clients by students in the laboratory and/or clinical setting. The presence or use of substances, lawful or otherwise, which interferes with the judgment or motor coordination of HS division student in the laboratory or clinical setting results in unacceptable risk for clients, colleagues, the College and the healthcare agency. Illegal or unauthorized manufacture, sale, possession or use of alcoholic beverages and/or controlled substances by students while engaged in any part of educational experiences poses an unacceptable risk for clients, colleagues, the College and the healthcare agency and is strictly prohibited. Any behavior resulting in the impairment of the student’s judgment or motor coordination resulting from unmanaged medical conditions is also included under the terms of this policy.
II. Procedure

A. On Campus: Didactic

Students are expected to adhere to the College’s Student Code of Conduct (http://www.mc3.edu/component/content/article/93-about-us/policies/sa-4/125-student-code-of-conduct) the rules and regulations of the Pennsylvania Board of Professional and Occupational Affairs (http://www.dos.state.pa.us/portal/server.pt/community/bureau_of_professional_occupational_affairs/12483) and the ethical standards of relevant professional organizations. Violation of the College’s Student Code of Conduct will follow the procedure as stated in the document. In addition, the Division Dean will be notified and at her/his discretion, further action may then be taken.

B. On and Off Campus: Laboratory/Clinical

1. The student will be immediately dismissed from the clinical setting if there is a reasonable suspicion of impaired performance and placed on probationary status. (Reasonable suspicion will include but not be limited to observations based on the items set forth therein: Slurred speech, incoordination; unsteady gait; drowsiness; impaired judgment, attention, memory or social function; irritability; paranoia; belligerence; euphoria; dilated or constricted pupils.) If necessary, in order to assure safety for the student in his/her immediate egress from the laboratory or clinical setting, the student’s Emergency Contact Person will be notified to come and pick up the student; the student will be required to remain at the site, but away from client contact, until said Emergency Contact Person arrives whether on or off the College campus.

2. The clinical faculty will complete the College’s ACCIDENT/ILLNESS/INJURY form and submit it to the Program Director (copy) and Director of Public Safety (original).

3. The student will not be permitted back into the laboratory/clinical setting until the following have been met:
   i. The student is required to meet with Program Director or designee.
   ii. The student will be referred to appropriate support services by the Program Director or designee.
   iii. The Program Director or designee reserves the right to require assessments as appropriate and/or verification of ongoing treatment of identified substance abuse or medical condition which has caused impaired student performance. Said assessment and/or verification must be obtained from the student’s Primary Care Practitioner and/or appropriate professional expert at the student’s expense.

4. An incident of impaired behavior may result in program dismissal.

C. This policy shall not limit or be in lieu of any other College discipline in accordance with all other College policies governing student behavior and conduct.

Originated - November, 2006
Updated – April, 2007
Updated – October, 2010
Updated - November, 2010
Updated – August, 2014
SERVICE WORK

The clinic sites must provide sufficient staff support to supervise students and carry out normal service functions to ensure that students are not used as substitutes for, or replacement of, clinic site personnel. If a student feels that the clinic site is not abiding by this requirement, he/she must contact the MLT Program Director immediately.
EVALUATION

BASIS FOR EVALUATION

Students are evaluated on the basis of their ability to meet goals described in the MLT "Statements of Competence" (see Appendices C-G). Evaluation in all components of the program is based on three areas of achievement: cognitive ability which consists of knowledge and understanding, psychomotor ability which is skill related and affective behavior which is related to attitudes and traits. Satisfactory evaluation in each of the three areas described is required for promotion. High achievement in any one area does not compensate for deficiencies in other areas.

DESCRIPTION OF EVALUATION METHODS

Cognitive Evaluation is based upon written assignments, quizzes, and examinations. These include class quizzes, assignments made in lectures and/or student laboratory, clinic quizzes, pre-tests, unit examinations, and final examinations.

Quizzes are given in all MLT lecture courses. They are based on the objectives of the previous lectures and on previously learned material. A short-answer format is generally used but other formats may be utilized. Graded quizzes are returned to students within one week. A grade of zero will be recorded for all missed quizzes. If a student misses a quiz because of lateness, the faculty member present will decide whether or not it is possible or desirable to administer the quiz later.

Unit examinations are given in all MLT lecture courses and dates are specified in the course schedule. They cover large units of instruction and are always in a multiple-choice format. Scores are given to students within one week.

Makeup exams may be given at the discretion of the instructors for justifiable, reported absences. The format may vary.

Students who wish to review previous Unit exams may do so under the following conditions:

Appointments must be scheduled at least one day in advance with the Department Secretary or in her absence, with the Program Director. Students must indicate the time period they will need to review exams as well as the date and subject of the exam(s) requested. No more than four students will be scheduled for any one-hour period. For this reason, students are urged to review exams well ahead of the date scheduled for final exams. Students will not be permitted to copy questions. Students may make brief notes which will be subject to review by the proctor. At the end of the specified time period, papers will be collected.

Final examinations are given in all MLT lecture courses during exam week. They cover the entire semester's work. Format and procedures for review are the same as those for unit exams.

NOTE: No opportunity is routinely given to students to make up exams which are missed. In such cases a zero is recorded. Any exception to this policy requires a decision by the Program Director and other faculty members.
Assignments are given to students in most MLT courses, either in the handout for each lecture or announced by the instructor. Assignments may include reading, problem solving, lab reports, journal reviews, compositions, case studies, etc. Graded assignments are returned to students within one week.

Each faculty member will be responsible for correcting and grading the lab reports in her/his content area. Corrected reports will be returned to students' mailboxes within one week of due date. Grades will be reported based on percentage of 100; in most cases 50% will be given for answers to interpretation and 50% for results. Homework that is late will receive a deduction for each day late. The amount of the deduction may vary with instructor and will be announced in class.

The following items (where applicable) will be used to evaluate and grade lab reports:

a) answers to questions from interpretation section of lab procedure, including correctness, thoroughness and completeness of responses.

b) accuracy and precision of results of analyses.

c) calculations, analyses and interpretations of data (e.g., data, reduction, statistical calculations, graphs, etc.).

d) neatness of any/all of above.

e) grammar, spelling, and English composition of any/all of above.

The faculty expects that students will write complete sentences or paragraphs whenever possible, as opposed to writing phrases or words, unless directed otherwise. Points will be deducted for misspelled words and grammatical errors.

Clinic pretests and quizzes are given in all MLT Clinical courses. They are announced in advance and graded promptly. Students are encouraged to review exams and quizzes, but are not permitted to keep them. Students must successfully complete a pretest with a grade of 70% or higher before they are permitted to report to their clinic site assignment. Students may attempt a pretest up to THREE times. If they fail to achieve a passing grade of 70% by the third attempt, they will not be permitted to start their clinic rotation and will receive a non-passing grading for the clinic course. For the purposes of calculating a course grade, students who require two or more attempts to pass a pretest will receive the average of the pretest scores or 70%, whichever is lower.

Psychomotor evaluation is based upon instructor observation of student performance of specified tasks or skills. Psychomotor evaluation methods include competency checklists, laboratory practicals, task performance at the clinic, and daily clinic and student lab review forms.

Practical examinations are given in all MLT laboratory courses. They are scheduled in advance and cannot be made up. Scores are available within one day of the exam.
Affective evaluation is based upon instructor observations of manifestations of student's attitudes. Standards are described in "Statements of Competency" (see Appendices C-G). Evaluation methods include the Daily Clinic review and Daily Laboratory Review forms.

GRADING SYSTEM

One letter grade is given for each MLT course which reflects the student's overall performance in the course.

Students must achieve a grade of "C" or better in all MLT courses, Chemistry for the Technologies, Anatomy & Physiology and Microbiology courses in order to qualify for progression to the next MLT course and for graduation.

CRITERIA FOR PASSING MLT 110

The following 2 components (designated A and B) are used in determining the letter grade for MLT 110.

<table>
<thead>
<tr>
<th>% of total grade</th>
<th>50%</th>
<th>A. STUDENT LABORATORY COMPONENT*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>evaluation method</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>Daily laboratory review form average</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Competency evaluation average</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>Laboratory reports/homework average</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% of total grade</th>
<th>50%</th>
<th>B. LECTURE COMPONENT*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>evaluation method</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>Quiz average</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>Exam average</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>Final exam</td>
</tr>
</tbody>
</table>

Assignments/homework will be averaged and are considered one quiz grade.

To pass the course, all of the following conditions must be met:

1. an overall average 70.
2. an average of 70 in each of the two components.
3. acceptable average rating in each of the criteria on the daily laboratory review form.

CRITERIA FOR PASSING MLT 123, 125, and 233 (Lecture Courses)

<table>
<thead>
<tr>
<th>% of total grade*</th>
<th>evaluation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>33%</td>
<td>Quiz average</td>
</tr>
<tr>
<td>33%</td>
<td>Unit exam average</td>
</tr>
<tr>
<td>34%</td>
<td>Final exam</td>
</tr>
</tbody>
</table>
CRITERIA FOR PASSING MLT 244 (Lecture Course)

<table>
<thead>
<tr>
<th>% of total grade</th>
<th>evaluation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
<td>Assignments (4)</td>
</tr>
<tr>
<td>20%</td>
<td>Exam average</td>
</tr>
<tr>
<td>20%</td>
<td>Final exam</td>
</tr>
</tbody>
</table>

CRITERIA FOR PASSING MLT 124, 126 and 234 (Laboratory Courses)

<table>
<thead>
<tr>
<th>% of total grade</th>
<th>evaluation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>Daily laboratory review average</td>
</tr>
<tr>
<td>40%</td>
<td>Practical exam average</td>
</tr>
<tr>
<td>20%</td>
<td>Lab reports/homework</td>
</tr>
</tbody>
</table>

CRITERIA FOR PASSING MLT 235 (Clinical Practicum)

<table>
<thead>
<tr>
<th>% of total grade</th>
<th>evaluation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>Pre-test average</td>
</tr>
<tr>
<td>20%</td>
<td>Quiz average</td>
</tr>
<tr>
<td>15%</td>
<td>Daily clinic review average</td>
</tr>
<tr>
<td>45%</td>
<td>Summative clinic review average</td>
</tr>
</tbody>
</table>

A 70% average must be obtained in each clinical area (rotation) in order to pass.

CRITERIA FOR PASSING MLT 245 (Clinical Practicum)

<table>
<thead>
<tr>
<th>% of total grade</th>
<th>evaluation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>Pre-test average</td>
</tr>
<tr>
<td>10%</td>
<td>Post-test average</td>
</tr>
<tr>
<td>10%</td>
<td>Quiz average</td>
</tr>
<tr>
<td>15%</td>
<td>Daily clinic review average</td>
</tr>
<tr>
<td>45%</td>
<td>Summative clinic review average</td>
</tr>
<tr>
<td>10%</td>
<td>Clinic review exercises</td>
</tr>
</tbody>
</table>

A 70% average must be obtained in each clinical area (rotation) in order to pass.

CRITERIA FOR PASSING MLT 246 (Seminar)

<table>
<thead>
<tr>
<th>% of total grade</th>
<th>evaluation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>30%</td>
<td>Written assignments</td>
</tr>
<tr>
<td>40%</td>
<td>Case study presentation</td>
</tr>
<tr>
<td>30%</td>
<td>Final exam</td>
</tr>
</tbody>
</table>

* The instructor reserves the right to adjust this distribution.
ACADEMIC PROGRESS AND GRADUATION

ACADEMIC PROGRESS

Through frequent evaluations and feedback, students are notified of their progress in the MLT course. Students who do not make satisfactory progress are warned and given every opportunity to improve. Faculty members are available to help students with academic problems. Perkins’-funded supplemental instruction is available to all students enrolled in MLT courses. Schedules are posted at the beginning of each semester.

Students who experience academic or personal difficulties should consult an advisor or counselor as soon as possible before making any decision to withdraw from a course or the program. In many cases, withdrawal may be avoided. Students are expected to notify the Program Director of their intent to withdraw.

Students who leave the program in good standing and wish to re-enter the program at a later date may do so only if space is available in the relevant courses. Students are considered for re-entry to the program upon receipt of a letter to this effect. The letter should be addressed to the Program Director.

In Clinical courses (MLT 235 and 245), students receive summative clinical evaluations at the end of each three- or four-week clinical rotation. Therefore, an unsatisfactory clinical evaluation at the end of any three- or four-week rotation could result in the student receiving a low grade for the entire MLT course. (Under extenuating circumstances, an "I" grade may be given and the student given the opportunity to repeat a rotation.)

Students will be dismissed from the program due to an occurrence of one or more of the following:

- Academic Dishonesty (Refer to Academic Code of Ethics)
- Abuse of confidential information
- Violation of ethical principles
- Failure to admit error
- Insubordination
- Theft
- Intoxication
- Use of narcotics
- Willful destruction of property

Students will be notified in writing and recommended for immediate dismissal from the program.
GRADUATION

It is the student's responsibility to give notice of anticipation of graduation. Students are referred to the current College Catalog section entitled "Application for Graduation."

1. Students must submit the required electronic form to the Office of Admissions & Records. The deadlines for submission can be found on the College's Website.

* Issuance of the degree is not contingent upon students passing any type of external certification or licensure examination.

GRADE APPEAL (Effective Fall 2014)

The College provides an appeal process for a student who believes that a recorded final grade does not accurately reflect his/her performance in a course. As the initiator of the process, the burden of proof is on the student to demonstrate otherwise. It is incumbent upon the student to strictly adhere to the established grade appeal procedures in an attempt to resolve the issue.

The policy can be found at (http://www.mc3.edu/about-us/policies/113)
STUDENT AFFAIRS

STUDENT RECORDS

The College accords all the rights under the Family Educational Rights and Privacy Act of 1974 to its students. A copy of this entire policy can be found at http://www.mc3.edu/about-us/policies/143. In addition to the official records kept elsewhere in the College, students' files are maintained in the MLT office. While the student is in the program, current files are kept which include formative and summative evaluation, advising records, copies of official letters, records of grades and attendance, and accident reports. Formative evaluations are kept for 4 years after graduation, and are then shredded.

The MLT office also keeps a record of students' addresses and telephone numbers. It is the student's obligation to notify the Program Director of changes.

Students who wish to review their file in the MLT office should make an appointment with the Program Director. Records may not be removed from the Department Office.

CERTIFICATION

Students who complete the MLT program and receive their degrees are recommended for certification examinations by the Program Director.

Many different agencies certify laboratory personnel. Students are encouraged to keep informed of their options and to seek information on their own initiatives, either directly from certifying agencies or by reviewing the laboratory literature. The faculty is prepared to assist students by sharing information but cannot recommend any one certifying body. Also, a certification seminar is given as part of the MLT 246 course.

CLUB ACTIVITIES

A Medical Laboratory Technician Club exists on campus. Students are encouraged to participate in the club in order to further their professional goals. Information about the MLT Club will be presented at the first orientation in MLT 110.

PROFESSIONAL SOCIETIES

The American Society for Clinical Laboratory Scientists (ASCLS) is the professional society which represents laboratory personnel. It is through this society that students are best kept informed of the advances and issues which will affect their future jobs. Students are encouraged to join when they are admitted to the program. (Membership fees for students are nominal.) Other professional societies are open to student membership but none so directly serve the MLT or permit a voice in policy as does ASCLS.

PROFESSIONAL MEETINGS

Many professional organizations hold meetings throughout the year. Information about meetings may be obtained from the professional societies, publications, the MLT bulletin board, and the clinical affiliates. Students are encouraged to attend these whenever possible.
SERVICES

HEALTH

Health maintenance and care is an individual responsibility of the student. You are strongly urged to carry health insurance. A physical examination is required within six months prior to enrollment in MLT and subsequently each year while enrolled in the Program.

Hepatitis vaccine

The Medical Director and the Program Director of the MLT Program strongly recommend that students be actively immunized against Hepatitis B before entering the program. A letter to students on this subject is included in Appendix K in this manual. If a student refuses Hepatitis B vaccination, they must sign a letter of declination.

Medical emergencies

Students are expected to notify the Program Director of any medical condition which might lead to a medical emergency, and of the name and telephone number of the person to contact in such cases.

Workmen's Compensation

Students injured while working in the laboratories must report to a laboratory supervisor or student Clinical Coordinator immediately. All injuries, regardless of severity, must be reported. Workmen's Compensation benefits do not extend to students in affiliated hospitals.

Emergency Services

Emergency care is available for students who become ill during the period of clinical assignment when immediate attention is required and when the students are too ill to report to the College Nurse. The cost of care will be determined by the policy of each hospital. Costs incurred will generally be the responsibility of the students.

Laboratory Services

No laboratory tests will be done on students except upon written request of a physician and at the student's expense. Written results will be sent to the requesting physician.

ADVISING

When the College announces the official period for advising for registration purposes, the MLT faculty will post information regarding appointments for students.

At the scheduled appointment time, the faculty will assist the students with course selections and sign the registration forms. No students will be permitted to register for MLT courses without the signature of his MLT faculty advisor. Students should consult the posted schedule of classes prior to their appointment.
Prior to acceptance into the MLT Program, students designated as ML.GS majors, should contact Sharon Connolly, the MLT Advisor in the Student Success Center, at 215-641-6686 or sconnoll@mc3.edu for advising appointments.

Students are encouraged to think about their course selections and plan in advance. Students who are uncertain of their plans should make an appointment to discuss them with a faculty advisor or a counselor well before the registration period.

Students are encouraged to discuss with their advisor any problems which might interfere with progress in the program or to seek information about policies or procedures.

BRENDLINGER LIBRARY

The MLT Program has an extensive collection of books, periodicals, slide sets, films, videotapes, etc. for student use in the library. (See Appendix H.) In addition to required assignments, students are urged to use the library collections for supplemental help and the library facilities as a quiet place for study.
APPENDICES
APPENDIX A: TERMINAL COMPETENCIES OF GRADUATES - GENERAL TOPICS

MONTGOMERY COUNTY COMMUNITY COLLEGE
Medical Laboratory Technician Program

1. Demonstrate interest in their field.*
2. Demonstrate dependability.*
3. Demonstrate effective interpersonal skills.*
4. Communicate effectively.*
5. Demonstrate integrity.*
6. Display a professional demeanor.*
7. Present a professional appearance.*
8. Follow safety procedures outlined by institution.
9. Collect blood by venipuncture and capillary puncture from a variety of patients.
10. Identify patients and maintain specimen identity throughout all laboratory procedures.
11. Follow specimen collection and handling procedures.
12. Use medical terminology.

* These competencies have been described in the attached document, "Affective Competencies."
APPENDIX B: AFFECTIVE COMPETENCIES OF GRADUATING STUDENTS

MONTGOMERY COUNTY COMMUNITY COLLEGE
Medical Laboratory Technician Program

INTEREST IN THE FIELD

MLT's are expected to have a sincere interest in the field of medical laboratory technology which is reflected in day to day attitudes and behaviors. Because it is a constantly changing profession, the MLT must be sufficiently self-motivated to keep pace with rapid technological advances and other changes.

The MLT who is interested in his/her work and learning will demonstrate initiative in beginning tasks and will follow them through to completion without prompting from instructors. An eagerness or enthusiasm for learning new tasks is another characteristic. Students are encouraged to regularly read medical technology journals, participate in professional societies and discuss current issues in the field.

DEPENDABILITY

To ensure the smooth and orderly functioning of the laboratory, it is important for the MLT to be dependable. As students, MLT's must develop the discipline needed to report to instructional assignments on time, to return promptly from breaks, and to complete work thoroughly and without delay. When unavoidable absence or lateness is anticipated, dependable MLT students will notify their instructors in advance to minimize any inconveniences or other problems.

In a broader sense, dependability will be attained by the MLT when she/he has gained the total trust of instructors and supervisors. This will occur when the student MLT displays all of the knowledge, skills, and attitudes characteristic of the competent MLT.

INTERPERSONAL SKILLS

The ability to relate well to a variety of people is important for the medical laboratory technician (MLT), who must work as part of a medical team and provide services to patients.

MLT students must be able to ask for and willingly accept the guidance and criticism of instructors, just as practicing MLT's must work under the supervision of department supervisors and pathologists. Cooperation with colleagues in the performance of daily tasks is also necessary, as laboratory work is often a team effort, especially when emergencies arise. Being sensitive to the needs of other staff members and offering needed assistance is an expected trait for the MLT. In their contacts with other medical personnel (nurses, physicians, etc.) MLT's should strive to represent the laboratory and their profession in the best possible way through courteous behavior and cooperation.

Most importantly, patients have the right to services performed not only skillfully but with the proper professional attitude. When drawing blood from patients, MLT's must be aware of the nature of their illnesses or other conditions, and respond accordingly. MLT’s must be able to interact appropriately with a variety of patients; well or ill, young or old, infirm or able. Patients need reassurance, communication, and courtesy from MLT's.
COMMUNICATION

MLT’s must be able to effectively exchange information both in writing and verbally.

Much information is transmitted both between various groups in the hospital and within the clinical laboratory. As a member of the health care team, the MLT is required to participate in this exchange.

MLT’s must be able to appropriately communicate to patients the nature of the blood collection procedures to be performed, taking into consideration the patient’s age and emotional and physical states.

In the laboratory, MLT’s must be able to use appropriate symbols and words to report the results of the analyses performed in such a way that there is no doubt as to their meaning. Clerical errors can have serious consequences for the patient and cannot be tolerated in the work of the MLT. MLT’s must be able to convey information verbally in a clear and concise manner with other members of the health care team both in person and over the telephone, often when time is limited. MLT’s must be able to follow both written test procedures and the verbal instructions of their supervisors.

INTEGRITY

MLT’s are expected to uphold the moral principles of their profession by exhibiting honesty and adhering to the accepted code of medical ethics.

MLT’s must report only those test results which they feel reflect their best work, and openly admit to a supervisor when they are unsure. Recognizing personal limitations, double checking results, and asking for help when necessary are all actions characteristic of an honest worker.

Because MLT’s have access to patient records, they are expected to use this information only when it directly relates to the work they are performing. Confidential information about patients, gained while performing one’s job, should never be disclosed outside of the laboratory. Even within the laboratory or hospital, discretion should be used when discussing patient cases with colleagues. The results of all laboratory tests are considered privileged information and are therefore confidential.

Laboratory tests can only be performed upon the orders of a licensed physician who has the medical knowledge to accurately interpret the results. For this reason, MLT’s should never perform tests which have not been ordered by a doctor, or report results directly to a patient. Using the laboratory facilities for the performance of unauthorized tests can be considered stealing revenue from the laboratory.
DEMEANOR

Students in the MLT program are expected to display professional conduct and bearing worthy of admiration, praise, and respect. Personal concerns must not be allowed to interfere with work, responses to stress should be appropriate, and emotions should be held in check while carrying out duties. The MLT should be self-confident and perceived as positive and pleasant by others.

Students must remember that demeanor is regarded as a reflection of their professional personalities. Patients, colleagues, other allied health professionals, and physicians observe demeanor before they are able to factually determine one's competence. Students have a responsibility to enhance their reputations as laboratory professionals, thus contributing to high regard for the profession itself.

APPEARANCE

It is important for MLT's to present a professional appearance at all times. Often people are judged solely by their physical appearance; other times, it makes a lasting first impression. Often there is an inference that people who care about their looks also care about their jobs. Unfortunately, such judgments may be made of MLT's irrespective of their professional competence. MLT's are expected to be neat, clean, and well-groomed, as they must work in close physical proximity to patients and co-workers. The wearing of personalized scrubs and labcoat while in the MLT program, help identify the student as a member of a distinct professional group within the hospital, and thus worthy, at least outwardly, of the respect of others.
APPENDIX C: TERMINAL COMPETENCIES OF GRADUATES - BLOOD BANK

MONTGOMERY COUNTY COMMUNITY COLLEGE
Medical Laboratory Technician Program

1. Evaluate suitability of specimens for analyses requested.

2. Use a specimen accession system.

3. Process specimens according to requirements of analyses and observe priorities in regard to urgency of request.

4. Perform routine tests in blood banking.
   a. When given a choice, select the appropriate procedures.
   b. Organize samples, equipment, and reagents.
   c. Follow laboratory procedures in a manual.
   d. For the following, describe the principles on which tests are based and quality control required.
      1) screening, identification, and titration of common antibodies
      2) compatibility testing
      3) processing of patient and donor specimens
      4) routine component preparation
      5) Rh immune globulin
      6) testing for red cell antigens
      7) transfusion reaction work-ups
      8) other routine tests

5. Record and interpret results of analyses using appropriate terms, taking special care to write records neatly and clearly.

6. Evaluate validity of tests.
   a. Detect errors and their sources.
   b. Determine acceptability of control values.

7. Operate common laboratory instruments and equipment. (See list below #1-7).
   a. Prepare instruments for operation.
   b. Identify malfunctions.
   c. Follow routine maintenance procedures.
   d. Describe principles of operation and applications.
      1) centrifuges
      2) microscopes
      3) refrigerators/freezers
      4) water baths and heating blocks
      5) cell washers
      6) segmenters
      7) plasma separator
8. Prepare, handle, and store reagents.


10. Discuss the relationship between data obtained (limited to test results of competency #4) and other pertinent information.

   a. Outline patterns of inheritance of the ABO, Rh, and other major blood group systems.
   b. Describe acquired immune/hemolytic disorders related to blood banking.
   c. Interpret incompatible crossmatches and discrepancies in testing in blood bank and relate the causes of each.
   d. Discuss hemolytic disease of the newborn and its prevention.
   e. Discuss transfusion reactions, their prevention, and treatment.
APPENDIX D: TERMINAL COMPETENCIES OF GRADUATES - CHEMISTRY AND URINALYSIS

MONTGOMERY COUNTY COMMUNITY COLLEGE
Medical Laboratory Technician Program

1. Evaluate suitability of specimens for analyses requested.
2. Use a specimen accession system.
3. Process specimens according to requirements of analyses and observe priorities in regard to urgency of request.
4. Perform routine tests in chemistry and urinalysis
   a. When given a choice, select the appropriate procedure.
   b. Organize samples, equipment, and reagents
   c. Follow laboratory procedures in a manual.
   d. Describe the principles on which tests are based for the following classes of substances: (details shown on task list for each course)
      1) carbohydrates
      2) proteins and amino acids
      3) non-protein nitrogenous substances
      4) lipids
      5) enzymes
      6) electrolytes
      7) therapeutic drugs
      8) miscellaneous body fluids and/or the following organ functions: (task list)
      9) kidney
      10) liver
      11) heart
      12) thyroid
5. Record results of analyses in appropriate units.
   a. Record patient values.
   b. Record control values using laboratory's quality control.
6. Evaluate validity of tests.
   a. Detect errors and their sources.
   b. Determine acceptability of control values.
7. Operate common laboratory instruments and equipment. (see list below #1-8).
   a. Prepare instruments for operation.
   b. Identify malfunctions.
   c. Follow routine maintenance procedures.
d. Describe principles of operation and applications.
   1) spectrophotometers
   2) automated analyzers (discrete, centrifugal, and continuous flow)
   3) electrophoresis equipment and densitometers
   4) ion-selective electrodes
   5) centrifuges
   6) osmometers
   7) automatic pipettors
   8) refractometer

8. Prepare, handle, and store reagents.


10. Discuss the relationship between data obtained (limited to test results of competency #4) and other pertinent information.
    a. Describe clinical pathology of common diseases.
    b. Describe physiological conditions which lead to abnormal results.
    c. Identify reference values.
    d. Explain high and low values.
       1) diabetes
       2) cardiovascular diseases
       3) urinary tract diseases
       4) respiratory diseases
       5) liver diseases
       6) thyroid disorders
       7) neoplasias
APPENDIX E: TERMINAL COMPETENCIES OF GRADUATES - HEMATOLOGY AND HEMOSTASIS

MONTGOMERY COUNTY COMMUNITY COLLEGE
Medical Laboratory Technician Program

1. Evaluate suitability of specimens for analyses requested.

2. Use a specimen accession system.

3. Process specimens according to requirements of analyses and observe priorities in regard to urgency of request.

4. Perform routine tests in hematology and hemostasis.
   a. When given a choice, select the appropriate procedure.
   b. Organize samples, equipment, and reagents.
   c. Follow laboratory procedures in a manual.
   d. Describe the principles on which tests are based and quality control required for the following: (details shown on task list for each course)
      1) CBC
      2) Differential
      3) Platelet counts
      4) Prothrombin time
      5) Activated partial thromboplastin time
      6) Bleeding time
      7) Cell counts on other body fluids (urine, CSF, etc.)
      8) Other routine tests

5. Record results of analyses in appropriate units.
   a. Record patient values.
   b. Record control values using laboratory's quality control system.

6. Evaluate validity of tests.
   a. Detect errors and their sources.
   b. Determine acceptability of control values.

7. Operate common laboratory instruments and equipment. (see list below #1-6)
   a. Prepare instruments for operation.
   b. Identify malfunctions.
   c. Follow routine maintenance procedures.
   d. Describe principles of operation and applications.
      1) automated cell counters
      2) microscopes
      3) centrifuges
      4) coagulation instruments
8. Prepare, handle and store reagents.


10. Discuss the relationship between data obtained (limited to test results of competency #4) and other pertinent information.
   a. Discuss clinical pathology of common diseases. (listed below)
      1) neoplastic disorders
      2) acquired anemias
      3) hemoglobinopathies
      4) inherited disorders
      5) platelet disorders
      6) coagulation factor disorders
      7) vascular defects
   b. Relate physiological conditions which lead to abnormal results.
   c. Identify reference values.
   d. Explain high and low values.
APPENDIX F: TERMINAL COMPETENCIES OF GRADUATES - IMMUNOLOGY

MONTGOMERY COUNTY COMMUNITY COLLEGE
Medical Laboratory Technician Program

1. Evaluate suitability of specimens for analyses requested.

2. Use a specimen accession system.

3. Process specimens according to requirements of analyses and observe priorities in regard to urgency of request.

4. Perform routine tests in immunology.
   a. When given a choice, select the appropriate procedure.
   b. Organize samples, equipment and reagents.
   c. Follow laboratory procedures in a manual.
   d. Describe the principles on which tests are based for the following:
      1) various antigen and antibody reactions
         a) agglutination
         b) hemagglutination
         c) agglutination inhibition
         d) precipitin test
         e) fluorescent antibody test
         f) complement fixation
         g) RIA
         h) ELISA
      2) various conditions
         a) infectious diseases
         b) immune disorders
         c) pregnancy

5. Record results of analyses in appropriate units.
   a. Record patient values.
   b. Record control values using laboratory’s quality control system.

6. Evaluate validity of tests.
   a. Detect errors and their sources.
   b. Determine acceptability of control values.

7. Operate common laboratory instruments and equipment. (see list below #1-6)
   a. Prepare instruments for operation.
   b. Identify malfunctions.
   c. Follow routine maintenance procedures.
d. Describe principles of operation and applications.
   1) microscopes
   2) centrifuges
   3) microtitration equipment
   4) incubators
   5) automatic pipettes and dilutors
   6) water baths and heating blocks

8. Prepare, handle, and store reagents.


10. Discuss the relationship between data obtained (limited to test results of competency #4) and other pertinent information.
    a. Describe clinical pathology of common diseases.
    b. Describe physiological conditions which lead to abnormal results.
    c. Identify reference values.
    d. Explain high and low values.
       1) immune disorders
       2) infectious diseases
       3) pregnancy
APPENDIX G: TERMINAL COMPETENCIES OF GRADUATES – MICROBIOLOGY

MONTGOMERY COUNTY COMMUNITY COLLEGE
Medical Laboratory Technician Program

1. Evaluate suitability of specimens for analyses requested.

2. Use a specimen accession system.

3. Process specimens according to requirements of analyses and observe priorities in regard to urgency of request.

4. Perform routine tests in microbiology:
   a. Isolate a variety of bacteria and fungi from various clinical specimens using accepted protocols.
      1) select media appropriate to the specimen following standard protocol
      2) apply principles of aseptic technique
      3) obtain isolated viable colonies by dilution streaking
      4) choose the correct environmental conditions for incubation
   b. Interpret results of routine cultures.
      1) recognize commonly isolated bacteria and yeast by colony morphology and growth characteristics
      2) evaluate microorganisms received as to significance (normal flora vs. potential pathogen)
      3) refer questionable or unfamiliar isolates to supervisor for verification
   c. Select, perform and interpret appropriate subculture techniques according to established procedures.
      1) make necessary transfers and subcultures using aseptic techniques
      2) perform and interpret results of biochemical tests needed for identification
   d. Using information obtained through gross and microscopic morphology, growth characteristics and biochemical tests, accurately identify commonly isolated bacteria and yeast.
   e. Determine necessity for and perform antibiotic susceptibility testing according to established methods and interpret results.
   f. Perform and accurately interpret results of gram stains.
   g. Prepare concentrations and stain and read acid-fast smears.
   h. Concentrate specimens and make wet mounts for recovery of intestinal parasites. Recognize common potentially pathogenic parasites.

5. Record results of analyses in appropriate units.
   a. Record patient values.
   b. Record control values using laboratory’s quality control system.

6. Perform the tests used to evaluate media, reagents, and procedures for quality control.
7. Operate common laboratory instruments and equipment (see list below #1-5).
   a. Prepare instruments for operation.
   b. Identify malfunctions.
   c. Follow routine maintenance procedures.
   d. Describe principles of operation and applications.
      1) microscopes
      2) incubators
      3) centrifuges
      4) refrigerators
      5) biological safety cabinets

8. Prepare bacteriological media and reagents according to specifications.


10. Correlate all analyses and patient information to determine genus, species, and stain for commonly isolated bacteria and yeasts.
    a. gross and microscopic morphology
    b. growth characteristics
    c. biochemical tests
    d. quantitative results
    e. serological tests
## APPENDIX H: MLT DEPARTMENT LIBRARY RESOURCES

MLT Department Textbook List

<table>
<thead>
<tr>
<th>Textbooks</th>
<th>Author</th>
<th>Title</th>
<th>Publisher</th>
<th>Publication Year</th>
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<tbody>
<tr>
<td><strong>MLT 106 - Phlebotomy</strong></td>
<td>McCall, Ruth</td>
<td>Phlebotomy Essentials</td>
<td>Lippincott, Williams &amp; Wilkins</td>
<td>2012</td>
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<td>McCall, Ruth</td>
<td>Phlebotomy Exam Review</td>
<td>Lippincott, Williams &amp; Wilkins</td>
<td>2012</td>
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<tr>
<td><strong>MLT 110 – Introduction to MLT</strong></td>
<td>Estridge &amp; Reynolds</td>
<td>Basic Clinical Laboratory Techniques</td>
<td>Delmar, Cengage Learning</td>
<td>2012</td>
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<td></td>
<td>Flynn Jr., John C</td>
<td>Procedures in Phlebotomy</td>
<td>Elsevier Saunders</td>
<td>2012</td>
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<tr>
<td><strong>MLT 123/124 – Immunohematology Lecture and Laboratory</strong></td>
<td>Blaney &amp; Howard</td>
<td>Basic &amp; Applied Concepts of Immunohematology</td>
<td>Mosby Elsevier</td>
<td>2013</td>
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<tr>
<td><strong>MLT 125/126 – Hematology Lecture and Laboratory</strong></td>
<td>Carr &amp; Rodak</td>
<td>Clinical Hematology Atlas</td>
<td>Saunders Elsevier</td>
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<td>Ciesla, Betty</td>
<td>Hematology in Practice</td>
<td>F.A. Davis</td>
<td>2012</td>
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<td>Bishop, Michael L, et.al</td>
<td>Clinical Chemistry: Techniques Principles, Correlations</td>
<td>Lippincott, Williams &amp; Wilkins</td>
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<td>Brunzel, Nancy A</td>
<td>Fundamentals of Urine and Body Fluid Analysis</td>
<td>Elsevier Saunders</td>
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**MLT 233/234 – Clinical Chemistry Lecture and Laboratory**

**MLT 235 – Clinical Practicum I**

No additional textbooks required

**MLT 244 – Professional Issues in MLT**

**MLT 245- Clinical Practicum II**

**MLT 246 – MLT Seminar**

No additional textbooks required
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<th>Author</th>
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<tr>
<td>Abbus, Lichtmann &amp; Pillai</td>
<td>Basic Immunology: Functions And Disorders of the Immune System</td>
<td>Saunders Elsevier</td>
<td>2014</td>
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<tr>
<td>Dannessa-Delost, Maria</td>
<td>Introduction to Diagnostic Microbiology for the Laboratory Sciences</td>
<td>Jones &amp; Bartlett Learning</td>
<td>2015</td>
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<td>Stevens, Christine</td>
<td>Clinical Immunology &amp; Serology: A Laboratory Perspective</td>
<td>F.A. Davis Company</td>
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<td>Tille, Patricia M.</td>
<td>Bailey &amp; Scott’s Diagnostic Microbiology</td>
<td>Elsevier Mosby</td>
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<tr>
<td>Tortura, Gerard J, et.al</td>
<td>Microbiology: An Introduction</td>
<td>Benjamin Cummings</td>
<td>2015</td>
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### Reference Books

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<tr>
<td>Arneson &amp; Brickell</td>
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<td>Hematology in Practice</td>
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<td>Di Lorenzo &amp; Strasinger</td>
<td>Blood Collection – A Short Course</td>
<td>F.A. Davis Company</td>
<td>2010</td>
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<td>Doucette, Lorraine J,</td>
<td>Mathematics for the Clinical Laboratory</td>
<td>Elsevier Saunders</td>
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<td>Gylys &amp; Wedding</td>
<td>Medical Terminology Systems</td>
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<td>Harmening, Denise M.</td>
<td>Modern Blood Banking and Transfusion Practices</td>
<td>F.A. Davis Company</td>
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<td>Leventhal &amp; Ceadle</td>
<td>Medical Parasitology</td>
<td>F.A. Davis Company</td>
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<td>Kaplan &amp; Pesce</td>
<td>Clinical Chemistry: Theory, Analysis And Correlation</td>
<td>Mosby Elsevier</td>
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<td>Kiser, Karen M, et.al</td>
<td>Clinical Laboratory Microbiology: A Practical Approach</td>
<td>Pearson</td>
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<td>McKenzie &amp; Williams</td>
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<td>Pagana, Kathleen</td>
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<td>Primrose, Pamela B.</td>
<td>Complete Phlebotomy Exam Review</td>
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<td>Sunheimer &amp; Graves</td>
<td>Clinical Laboratory Chemistry</td>
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<td>Tatsumi, Noriyuki</td>
<td>Leukocytometry</td>
<td>Sysmex Corporation</td>
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<td>Tortura, Gerard J, et.al</td>
<td>Microbiology: An Introduction</td>
<td>Benjamin Cummings</td>
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<td>Turgeon, Mary Louise</td>
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<tr>
<td>VanMeter, Karin, et.al</td>
<td>Microbiology for the Healthcare Professional</td>
<td>Mosby Elsevier</td>
<td>2010</td>
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**Videos /CD-Roms/DVDs**

- Basic Venipuncture, Preventing Preanalytical Errors, Avoiding Phlebotomy-Related Lawsuits (Digitized and Networked) - Center for Phlebotomy Education
- Bloodborne Safety - Medcom
- Making a Difference through Newborn Screening: Blood Collection on Filter Paper - CLSI (NCCLS)
- Simplate Bleeding Time: The Standard - Organon Teknika Corporation
Supplemental Videos /DVDs

Acute and Chronic Renal Failure – Video 3962 2000
Confidentiality: Who Needs to Know – Video 3683 2001
Cultural Diversity in Health Care: A Different Point of View – Video 2975 1994
Pharmacology Principles: Roadside Assistance – DVD 2632 2007
The Human Body – Video 4109 2001
Test Taking Techniques – Video 757 1986
Tucked in Tight: Honoring the Aging Patient – DVD 1260 2005

Print Periodicals

Advance for Medical Laboratory Professionals, Merion Publications 2011-2012
(Located in the MLT Office Suite)

Lab Medicine 2007-2012

Virtual Reality Product

Computer Skills Simulator- Virtual Phlebotomy Laerdal Medical Corporation
<table>
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<tr>
<th>Online Periodicals</th>
<th>Publisher</th>
<th>Coverage from</th>
<th>Coverage to*</th>
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<tr>
<td>Analytical Cellular Pathology</td>
<td>IOS Press</td>
<td>Volume 13, Number 1 (1997)</td>
<td>Present (9 month embargo)</td>
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<tr>
<td>Archives of Pathology and Laboratory Medicine</td>
<td>College of American Pathologists</td>
<td>Volume 127, Number 1 (2003)</td>
<td>Present</td>
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<tr>
<td>Clinical Chemistry and Laboratory Medicine</td>
<td>De Gruyter</td>
<td>Volume 41, Number 1 (2003)</td>
<td>Present</td>
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<tr>
<td>Clinical Laboratory Reference</td>
<td>NP Communications, LLC</td>
<td>Volume 40, Number 11 (2008)</td>
<td>Present</td>
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<td>Clinical Laboratory Science</td>
<td>American Society for Clinical Laboratory Science</td>
<td>Volume 17, Number 1 (2004)</td>
<td>Present</td>
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<td>Hemoglobin</td>
<td>Taylor &amp; Francis</td>
<td>Volume 25, Number 1 (2001)</td>
<td>Present (18 month embargo)</td>
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<tr>
<td>Histopathology</td>
<td>Wiley-Blackwell</td>
<td>Volume 31, Number 1 (1998)</td>
<td>Present (1 year embargo)</td>
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<td>Internet Journal of Hematology</td>
<td>Internet Scientific Publications LLC</td>
<td>Volume 1, Number 1 (2003)</td>
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<td>Laboratory Medicine (also in print)</td>
<td>American Society for Clinical Pathology</td>
<td>Volume 31, Number 1 (2000)</td>
<td>Present</td>
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<td>MLO: Medical Laboratory Observer</td>
<td>NP Communications, LLC</td>
<td>Volume 33, Number 9 (2001)</td>
<td>Present</td>
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<td>Transfusion</td>
<td>Wiley-Blackwell</td>
<td>Volume 43, Number 1 (2003)</td>
<td>Present (1 year embargo)</td>
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<td>Transfusion Medicine</td>
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<td>Volume 8, Number 1 (1998)</td>
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<td>Ultrastructural Pathology</td>
<td>Taylor &amp; Francis Ltd</td>
<td>Volume 23, Number 1 (1999)</td>
<td>Present (18 month embargo)</td>
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*An embargo means that there is not online full-text access available for the most recent issues. If it is December 2013 and there is a one year embargo, then only issues through December 2012 would be available.*
APPENDIX I: LETTER TO STUDENTS – HEPATITIS VACINE

MLT Program

To newly admitted MLT students:

The MLT Department recommends that students be actively immunized against Hepatitis B before entering the program in the Fall. This is because a student can expect to be in constant contact with blood and body fluids in all areas of the clinical laboratory. Also, students will draw blood from patients and during the procedure, there is a possibility that an accidental "stick" involving a known or unknown carrier will occur.

Furthermore Hepatitis B can be a serious infection. It often has a protracted course of 2-3 weeks of illness followed by several weeks of convalescence, with the possibilities of serious sequelae and of becoming a carrier.

Occasionally there are objections to vaccination. Some of these are given together with an answer to the objection.

1. This vaccine costs too much.
   Actually, it costs less, is more effective, and provides longer lasting immunity than Hepatitis B immune globulin (HBlg) which is the only other substance that can be given to prevent this disease.

2. The vaccine might transmit other infections.
   There have been no instances of this vaccine transmitting another infection. (This includes AIDS.)

3. Hepatitis can be prevented by giving gamma globulin after exposure.
   a. The fact that exposure has occurred is not always apparent.
   b. Gamma globulin is not effective and HBlg is only 75% effective in preventing Hepatitis.
   c. Protection only lasts 8 weeks.
   d. HBlg can be more than twice as expensive as the vaccine.

If you decide to receive this immunization, you should contact your personal physician. If you have any questions you may call me at 215-453-4680.

Sincerely,

Irwin Hollander, M.D.
MLT Medical Director

/wp
APPENDIX J: MLT 110, 124, 126, 234 LABORATORY REVIEW FORM

MONTGOMERY COUNTY COMMUNITY COLLEGE
Medical Laboratory Technician Program

Student: ___________________________________________  Instructor: _______________________

Date: ___________________________________________  Subject: ________________________________

This form is to be used as a learning/teaching tool for the purpose of alerting us to problems as they arise. Circle the number which best describes the student's work and behavior for this lab period. All categories marked "acceptable" should be documented on the reverse side of the sheet. Please fill out the form each day as soon as the student finishes his/her work and share your comments and evaluation with him/her. Be as fair and accurate as possible.

<table>
<thead>
<tr>
<th>Category</th>
<th>Ideal</th>
<th>Very Good</th>
<th>Good</th>
<th>Acceptable (Minimally Competent)</th>
<th>Improvement Needed (Less Than Minimally Competent)</th>
<th>Unacceptable</th>
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<tbody>
<tr>
<td>1. Prepared in advance and demonstrated adequate knowledge of the subject.</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>0</td>
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<tr>
<td>2. Correctly performed all steps of procedure.</td>
<td>16</td>
<td>13</td>
<td>10</td>
<td>8</td>
<td>4</td>
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<tr>
<td>3. Performed the procedure in an acceptable period of time.</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>4</td>
<td>2</td>
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<tr>
<td>4. Obtained acceptable results.</td>
<td>16</td>
<td>13</td>
<td>10</td>
<td>8</td>
<td>4</td>
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<tr>
<td>5. Demonstrated competence in previously learned skills.</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>0</td>
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<tr>
<td>6. Used and maintained equipment properly.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
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<td></td>
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<tr>
<td>7. Maintained a clean and organized work area.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
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<tr>
<td>8. Conserved laboratory reagents and supplies.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
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<tr>
<td>9. Observed all safety precautions.</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<tr>
<td>10. Reported to the lab on time and returned promptly from breaks.</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<tr>
<td>11. Dressed appropriately. (Refer to policy manual)</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Was cooperative, acted in trustworthy, ethical and professional manner.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Accepted guidance of supervisors without resentment and actively sought it when necessary.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Communicated well, followed verbal directions and asked appropriate questions.</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Comments:________________________________________________________________________________________

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APPENDIX J

ANECDOTAL RECORD FORM

SUBJECT:____________________________

INCIDENT (FACTS):

POSSIBLE DIAGNOSIS

GOALS TO REMEDY

DISCUSSED WITH STUDENT: YES __________ NO __________

ANECDOTAL RECORD FORM

SUBJECT:____________________________

INCIDENT (FACTS):

POSSIBLE DIAGNOSIS

GOALS TO REMEDY

DISCUSSED WITH STUDENT: YES __________ NO __________

ANECDOTAL RECORD FORM

SUBJECT:____________________________

INCIDENT (FACTS):

POSSIBLE DIAGNOSIS

GOALS TO REMEDY

DISCUSSED WITH STUDENT: YES __________ NO __________
### APPENDIX K: (DLR) RATING DESCRIPTORS, SECOND YEAR (MLT 110, 124, 126, 234)

**MONTGOMERY COUNTY COMMUNITY COLLEGE**  
Medical Laboratory Technician Program

<table>
<thead>
<tr>
<th>SKILLS</th>
<th>Good/Acceptable, Minimally Competent</th>
<th>Improvement Needed, Less Than Minimally Competent</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>INITIATIVE</td>
<td>self-starter; works without prompting; offers to help others; looks for added responsibility</td>
<td>needs direction; needs occasional reminder to complete tasks; doesn't expend extra effort</td>
<td>requires constant supervision; needs frequent reminder for completion of tasks</td>
</tr>
<tr>
<td>ORGANIZATION</td>
<td>extremely well-organized; can arrange priorities &amp; organize work station</td>
<td>needs occasional help in keeping work in order and setting priorities</td>
<td>frequently disorganized; has trouble keeping work in order; has trouble setting priorities</td>
</tr>
<tr>
<td>QUALITY OF WORK</td>
<td>consistently accurate results; repeats not usually necessary; can correct own mistakes</td>
<td>makes few errors; able to recognize own errors</td>
<td>frequent errors; careless worker; can't judge quality of work</td>
</tr>
<tr>
<td>QUANTITY OF WORK</td>
<td>finishes all assigned work in good time; goes on to other tasks</td>
<td>finishes required work in time allotted</td>
<td>unable to finish assigned tasks in reasonable time</td>
</tr>
<tr>
<td>PROBLEM SOLVING</td>
<td>easily relates previous learning to current work without help from instructor; uses sound judgment</td>
<td>needs some help from instructor when faced with new problem, but can apply knowledge</td>
<td>unable to relate previous experience to current task; requires constant supervision</td>
</tr>
<tr>
<td>KNOWLEDGE &amp; PREPARATION</td>
<td>demonstrates extra study; consistently applies lecture and lab to clinic work; always prepared; uses resources appropriately</td>
<td>shows evidence of outside study related to assigned work; applies lecture and lab material</td>
<td>unprepared; no review; cannot apply lecture and lab material to clinic; can't use resources</td>
</tr>
<tr>
<td>SAFETY</td>
<td>always follows policy</td>
<td>occasionally makes careless mistakes or acts thoughtlessly</td>
<td>knowingly disregards safety policy</td>
</tr>
<tr>
<td>WRITTEN WORK</td>
<td>worksheets and reports are always neat; handwriting is clear; no spelling errors</td>
<td>needs some improvement in neatness, but results are legible</td>
<td>reports and worksheets are sloppy; transposes figures; handwriting illegible</td>
</tr>
<tr>
<td>VERBAL SKILLS</td>
<td>expresses self clearly and concisely; uses correct medical or technical terms</td>
<td>makes self understood; could be more clear and concise; attempts to use medical or technical terms</td>
<td>avoids communication; talks excessively; is not understood by others</td>
</tr>
<tr>
<td>ETHICS</td>
<td>handles confidential information in appropriate manner; performs tests only with doctor's orders</td>
<td>needs reminders to improve neatness; results are legible; makes frequent spelling errors</td>
<td>indiscriminately discusses confidential information; performs tests without doctor's orders</td>
</tr>
<tr>
<td>TRUST-WORTHINESS</td>
<td>admits errors and seeks to correct them; reports only results known to be accurate</td>
<td>admits errors, but lets others correct them</td>
<td>does not recognize or correct mistakes; covers up; allows personal feelings to outweigh professional ethics</td>
</tr>
<tr>
<td>SKILLS WITH PATIENTS</td>
<td>actively contributes to patients' mental and physical comfort</td>
<td>respects patients' feelings and needs</td>
<td>aloof but polite; indifferent; rude; abrupt</td>
</tr>
<tr>
<td>SKILLS WITH SUPERVISORS/INSTRUCTORS</td>
<td>actively seeks and positively appreciates guidance; uses feedback to correct deficiencies</td>
<td>accepts and responds appropriately to criticism</td>
<td>passively accepts most criticism; refuses to perform tasks</td>
</tr>
<tr>
<td></td>
<td>Ideal/Very Good</td>
<td>Good/Acceptable, Minimally Competent</td>
<td>Improvement Needed, Less Than Minimally Competent</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>SKILLS WITH COLLEAGUES</td>
<td>shows appropriate interest in and concern for a variety of people; cooperative and helpful</td>
<td>cooperative; doesn't interfere with others' work</td>
<td>has difficulty relating to some people, but work doesn't suffer</td>
</tr>
<tr>
<td>APPEARANCE</td>
<td>complies with dress code; neat, clean, well-groomed</td>
<td>complies with dress code; not as neat or clean as expected of professional</td>
<td>complies with dress code, but uniform wrinkled, shoes not bright; not well-groomed</td>
</tr>
<tr>
<td>DEMEANOR</td>
<td>self-confident, positive, pleasant; emotions under control; works well under stress</td>
<td>usually good-natured; fairly self-confident</td>
<td>occasionally moody, impatient; not very positive or confident</td>
</tr>
<tr>
<td>DEPENDABILITY</td>
<td>ready to work at assigned time; returned promptly from breaks</td>
<td>on time but not ready to work</td>
<td>late due to personal emergency, but notified in advance</td>
</tr>
</tbody>
</table>

P:\mlt\MLT Student Manual 5-2015
APPENDIX L: DAILY CLINIC REVIEW (DCR), SECOND YEAR (MLT 235 & 245)  
MONTGOMERY COUNTY COMMUNITY COLLEGE  
MLT PROGRAM

Student __________________________ Instrucor ____________________________________
(last name) (first name)
Date ________________ Hospital __________________________ Department _______________________

This form is to be used as a learning/teaching tool for the purpose of providing feedback to the student. Circle the number in the space which best describes the student's performance, then sum the numbers. (Complete descriptions of each rating are found in the DCR Rating Descriptors.) Please fill out the form each day as soon as the student finishes work and share your comments and evaluation with her/him. Be as fair and accurate as possible. Students: Place your initials by your name to indicate that you have read this.

<table>
<thead>
<tr>
<th>WORK PRACTICES</th>
<th>Very Good</th>
<th>Good, with minor deviation</th>
<th>Acceptable-minimally competent</th>
<th>*Acceptable-less than minimally competent</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>initiative</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>organization</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>quality of work</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>quantity of work</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>problem solving</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>knowledge/preparation</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>safety</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>

| COMMUNICATIONS                  |           |                             |                               |                                          |              |
| written reports                 | 3         | 2                           | 1                             |                                           | 0            |
| verbal skills                   | 3         | 2                           | 1                             |                                           | 0            |

| INTEGRITY                      |           |                             |                               |                                          |              |
| ethics                          | 3         |                             |                               |                                           | 0            |
| trustworthiness                 | 3         |                             |                               |                                           | 0            |

| INTERPERSONAL SKILLS            |           |                             |                               |                                          |              |
| with patients                   | 3         | 2                           | 1                             |                                           | 0            |
| with supervisors/instructors    | 3         | 2                           | 1                             |                                           | 0            |
| with colleagues                 | 3         | 2                           | 1                             |                                           | 0            |

| PERSONAL TRAITS                 |           |                             |                               |                                          |              |
| appearance                      | 3         | 2                           | 1                             |                                           | 0            |
| demeanor                        | 3         | 2                           | 1                             |                                           | 0            |
| dependability                   | 3         | 2                           | 1                             |                                           | 0            |

* "Acceptable-less than minimally competent" is only applicable during the beginning of a practicum.

COMMENTS: Please use this space to identify the student's strengths and weaknesses.
## Daily Task Record

<table>
<thead>
<tr>
<th>Procedures performed</th>
<th># successful</th>
<th># attempted</th>
<th>Instructor's initials</th>
<th>Procedures observed</th>
<th>#</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

# Venipunctures
- Successful _____
- Attempted _____

# Capillary punctures
- Successful _____
- Attempted _____

Instructor's initials _____________

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<table>
<thead>
<tr>
<th>SKILLS WITH PATIENTS</th>
<th>SKILLS WITH SUPERVISORS/INSTRUCTORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>actively contributes to patients' mental and physical comfort</td>
<td>actively seeks and positively appreciates guidance; uses feedback to correct deficiencies</td>
</tr>
<tr>
<td>respects patients' feelings and needs</td>
<td>appropriately to criticism</td>
</tr>
<tr>
<td>aloof but polite</td>
<td>passively accepts most criticism</td>
</tr>
<tr>
<td>indifferent; rude; abrupt</td>
<td>rejects and is defensive of criticism; refuses to perform tasks</td>
</tr>
</tbody>
</table>

**APPENDIX M:** (DCR) RATING DESCRIPTORS, SECOND YEAR (MLT 235 & 245)
MONTGOMERY COUNTY COMMUNITY COLLEGE
Medical Laboratory Technician Program

<table>
<thead>
<tr>
<th>INITIATIVE</th>
<th>Good, With Minor Deviation/Minimally Competent</th>
<th>Acceptable, Less Than Minimally Competent</th>
<th>Unacceptable</th>
</tr>
</thead>
<tbody>
<tr>
<td>self-starter; works without prompting; offers to help others; looks for added responsibility</td>
<td>knows what needs to be done; requires little direction; does what's required</td>
<td>needs direction; needs occasional reminder to complete tasks; doesn't expend extra effort</td>
<td>requires constant supervision; needs frequent reminder for completion of tasks</td>
</tr>
<tr>
<td>ORGANIZATION</td>
<td>extremely well-organized; can arrange priorities &amp; organize work station</td>
<td>usually has work organized; needs some help with priorities</td>
<td>needs occasional help in keeping work in order and setting priorities</td>
</tr>
<tr>
<td>QUALITY OF WORK</td>
<td>consistently accurate results; repeats not usually necessary; can correct own mistakes</td>
<td>makes few errors; able to recognize own errors</td>
<td>average number of errors; needs help recognizing and correcting mistakes</td>
</tr>
<tr>
<td>QUANTITY OF WORK</td>
<td>finishes all assigned work in good time; goes on to other tasks</td>
<td>finishes required work in time allotted</td>
<td>usually able to finish assigned work; may occasionally need help or more time</td>
</tr>
<tr>
<td>PROBLEM SOLVING</td>
<td>easily relates previous learning to current work without help from instructor; uses sound judgment</td>
<td>needs some help from instructor when faced with new problem, but can apply knowledge</td>
<td>usually able to relate previous learning to current task, but needs much prompting from instructor</td>
</tr>
<tr>
<td>KNOWLEDGE &amp; PREPARATION</td>
<td>demonstrates extra study; consistently applies lecture and lab to clinic work; always prepared; uses resources appropriately</td>
<td>shows evidence of outside study related to assigned work; applies lecture and lab material</td>
<td>little outside study; needs much prompting from instructor; has difficulty applying lecture and lab; doesn't use resources</td>
</tr>
<tr>
<td>SAFETY</td>
<td>always follows policy</td>
<td>occasionally makes careless mistakes or acts thoughtlessly</td>
<td>occasionally acts without regard to safety policy</td>
</tr>
<tr>
<td>WRITTEN WORK</td>
<td>worksheets and reports always neat; handwriting is clear; no spelling errors</td>
<td>needs some improvement in neatness, but results are legible</td>
<td>needs reminders to improve neatness; results are legible; makes frequent spelling errors</td>
</tr>
<tr>
<td>VERBAL SKILLS</td>
<td>expresses self clearly and concisely; uses correct medical or technical terms</td>
<td>makes self understood; could be more clear and concise; attempts to use medical or technical terms</td>
<td>doesn't use medical or technical terms, but makes self understood</td>
</tr>
<tr>
<td>ETHICS</td>
<td>handles confidential information in appropriate manner; performs tests only with doctor's orders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRUST-WORTHINESS</td>
<td>admits errors and seeks to correct them; reports only results known to be accurate</td>
<td>admits errors, but lets others correct them</td>
<td></td>
</tr>
<tr>
<td>SKILLS WITH PATIENTS</td>
<td>actively contributes to patients' mental and physical comfort</td>
<td>respects patients' feelings and needs</td>
<td>aloof but polite</td>
</tr>
<tr>
<td>SKILLS WITH SUPERVISORS/INSTRUCTORS</td>
<td>actively seeks and positively appreciates guidance; uses feedback to correct deficiencies</td>
<td>accepts and responds appropriately to criticism</td>
<td>passively accepts most criticism</td>
</tr>
<tr>
<td>SKILLS WITH COLLEAGUES</td>
<td>Very Good</td>
<td>Good, With Minor Deviation/Minimally Competent</td>
<td>Acceptable, Less Than Minimally Competent</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------</td>
<td>-----------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>shows appropriate interest in and concern for a variety of people; cooperative and helpful</td>
<td>shows appropriate interest in and concern for a variety of people; cooperative and helpful</td>
<td>cooperative; doesn't interfere with others' work</td>
<td>has difficulty relating to some people, but work doesn't suffer</td>
</tr>
<tr>
<td>APPEARANCE</td>
<td>complies with dress code; neat, clean, well-groomed</td>
<td>complies with dress code; not as neat or clean as expected of professional</td>
<td>complies with dress code, but uniform wrinkled, shoes not bright; not well-groomed</td>
</tr>
<tr>
<td>Demeanor</td>
<td>self-confident, positive, pleasant; emotions under control; works well under stress</td>
<td>usually good-natured; fairly self-confident</td>
<td>occasionally moody, impatient; not very positive or confident</td>
</tr>
<tr>
<td>Depend-A bility</td>
<td>ready to work at assigned time; returned promptly from breaks</td>
<td>on time but not ready to work</td>
<td>late due to personal emergency, but notified in advance</td>
</tr>
</tbody>
</table>
APPENDIX N: SAFETY PROCEDURES FOR THE MLT PROGRAM AND LABORATORY

MONTGOMERY COUNTY COMMUNITY COLLEGE
Medical Laboratory Technician Program

Purpose of the Safety Program

1. To protect the health and well-being of the students and faculty while working in the student laboratory.
2. To eliminate the spread of potentially infectious agents outside of the laboratory.
3. To protect the College housekeeping staff who clean the facilities.
4. To teach students the principles of safety and asepsis so they can work safely at the clinical sites and in their future employment.

Safety Hazards

Safety hazards in the MLT student and clinical laboratories include biohazards, chemicals, fire and electricity. Biohazards are those agents capable of transmitting infectious diseases, such as blood, urine and body fluids or inanimate objects contaminated with these substances. Microbiological cultures are also potential biohazards. Biohazards are encountered routinely by Phlebotomy students. Potentially harmful chemicals used in the lab include acids and bases, alcohols and other caustic or poisonous chemicals. Because open flames are not used in the MLT student laboratory, the risk of fire is limited to only that associated with the operation of electrical equipment. If used properly, electrical equipment (analytical instruments) should pose no danger for students.

The risks to students are minimized through education. Lectures, reading assignments and lab exercises continually present safety information. Students’ work in the lab is closely monitored by instructors. CLINICAL SPECIMENS FROM PATIENTS WITH HEPATITIS B OR AIDS ARE NEVER INTENTIONALLY BROUGHT INTO THE STUDENT LABORATORY. Furthermore, the use of harmful chemicals is minimized whenever possible and analytical instruments are maintained in good working order.

Safety Guidelines for Students

1. Eating, drinking, smoking and gum chewing are prohibited in the MLT student lab. There should be no hand to mouth contact for any reason.
2. Non-latex gloves are to be worn for all work with blood, urine, or other body fluids. Gloves which become obviously contaminated or torn should be discarded and a new pair obtained.
3. Hands are to be washed using antiseptic before leaving the lab and anytime they are soiled with a biohazard.
4. Lab surfaces (bench tops, floors, etc.) which have been contaminated with a biohazard via a spill or splash are to be disinfected for five minutes before being cleaned with paper towels.

5. The work surface of the lab stations are to be covered with protective mats at all times. Used mats are changed at the end of each lab period and discarded in biohazard bags.

6. Students will keep a small biohazard bag at their lab stations and place non-sharp contaminated disposable items directly into them. These bags are then placed in the larger biohazard bags at the end of the lab period. Sharp or rigid biohazards are discarded into large, red containers on the bench tops.

7. All disposables contaminated with biohazards (e.g., tissues, pipet tips, etc.) are to be discarded directly into biohazard bags or rigid containers. (Instructors will notify students when clinical specimens may be discarded.)

8. Contaminated non-disposable glassware is to be placed in specially marked containers of disinfectant.

9. Mouth pipetting is prohibited. Suction bulbs, aspirators, or automatic pipettes must be used at all times.

10. Students may not wear street clothes in the lab. Proper uniforms and lab coats must be worn, long hair must be tied back, and nails must be kept short.

11. Safety goggles are to be worn for all work with chemicals.

12. Students may not operate any electrical equipment (instruments, etc.) until instructed in their proper use.

13. Centrifuges must be closed and balanced for operation and should never be opened until they have come to a complete stop.

14. Reagent labels, product literature and lab procedures should be read carefully before beginning work.

15. All clinical specimens must be handled as if they are infectious and necessary safety precautions taken. (Note: It is never known with certainly if specimens are free of hepatitis B or AIDS viruses!) 

16. Venipuncture needles should not be resheathed after use. Special devices for removing and discarding needles are provided in the lab.

17. Broken glass will be discarded in a special rigid container.

18. All cases of accidents, personal injury (even if very minor) or lab spills need to be reported to the instructor immediately.

19. Students are expected to concentrate on their work, keep alert and use common sense at all times.
Fire Procedure (Steps are to be followed in the order listed below.)

1. Remove any persons in immediate danger.

2. Sound the fire alarm which is located on the wall in the hallway across from the MLT lab entrance.

3. Phone the College switchboard by dialing 6666 and report the fire location. The closest phone is in the MLT lab.

4. If feasible, fight the fire using the fire extinguisher which is located on the wall by the refrigerator.