



HARCUM COLLEGE

**MEDICAL LABORATORY  
TECHNICIAN  
STUDENT HANDBOOK**

Revised June, 2019

# MLT STUDENT HANDBOOK

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## Introduction

The Medical Laboratory Technician Program at Harcum College is a blended online Associate Degree program designed to prepare individuals for immediate employment in a clinical laboratory environment.

The Medical Laboratory Technician Program at Harcum College offers students flexibility to earn their Associate's Degree on a full-time or part-time basis. All MLT courses, designated as MLS, are offered over the internet in the LMS online course management system. Student labs are offered on 5 Saturdays from 9am–3pm throughout the semester. These labs are held on the Harcum College campus for students within a 2-hour driving distance from Harcum College.

Student lecture courses and associated lab courses:

Lecture course:           MLS 101 Intro to MLT  
Associated lab course: MLS 140 Applied Lab Techniques I

Lecture course:           MLS 113 Basic Hematology and Clinical Microscopy  
Associated lab course: MLS 114 Applied Hematology and Microscopy Lab

Lecture course: MLS 211, 212, 213, 214 senior lecture courses  
Associated lab course: MLS 240 Applied Lab Techniques II

Students qualify to take MLS 240 Applied Lab Techniques II simultaneously with the MLS 211, 212, 213, 214 senior lecture courses or upon successful completion of these courses.

Students who reside greater than 2 hours from Harcum College (Distance Students) will be directly contacted by the Assistant Program Director and accommodations will be made for completion of student labs.

General education courses that are required in the MLT program, but not offered online at Harcum, may be taken at any accredited college/university and transferred to Harcum as long as the student completes the course with a grade of "C" or better. Courses required as part of the MLT program but **not currently offered online** include:

CHE	College Chemistry Elective with Lab	4 credits
BIO 205	General Microbiology and Lab	4 credits

A maximum of 30 credits is permitted for transfer.

MLT students attend a clinical practicum off campus during their final semester. During the practicum, students rotate through the various departments within the laboratory: Chemistry, Hematology, Coagulation, Urinalysis, Microbiology, Blood Bank, and Immunology.

The clinical practicum is currently offered Monday-Friday as a day program only, with hours generally available between 7am-5pm. Students attend the practicum on a full-time basis. The MLT program director and clinical coordinator will take student's preference into consideration, but students cannot be guaranteed a particular site. Distance students are required to provide contact information for their desired site to the MLT Assistant Program Director, and all efforts will be made to secure a site close to the distant student. Please refer to Clinical Placement policy on page 11 of this handbook. The Clinical Facility must be accredited by at least one of the following agencies: CLIA, CAP, JACHO, and COLA. The following documentation is required from the clinical site prior to the student beginning their clinical practicum:

1. A signed affiliation agreement, stating the responsibilities of the clinical site and the college in providing student lab training. Harcum College does provide malpractice insurance for each student
2. Evidence that the clinical site coordinator is a Board of Certification, or equivalent, certified technologist/technician
3. Evidence that the clinical site is accredited

The MLT program at Harcum College is accredited by NAACLS:

The National Accrediting Agency for Clinical  
Laboratory Sciences  
5600 N. River Road  
Suite 720  
Rosemont, IL 60018-5119  
Phone: 847-939-3597  
[www.naacls.org](http://www.naacls.org)

### **Completion of Student Lab Paperwork**

All lab paperwork is accessible to the student through the LMS online course management system. Once the student has completed the lab activities, and they have been graded by the clinical site coordinator, the completed paperwork is mailed or faxed to the clinical coordinator at Harcum College.

All paperwork must be received by the LMS lab instructor at least one week prior to the end of the semester in order for the student to receive a grade.

### **Program Learning Outcomes and Mission Statement**

The mission of the Medical Laboratory Technician Program is to prepare individuals, from diverse backgrounds, for employment as knowledgeable and technically skilled medical laboratory technicians who are capable of higher order critical thinking processes and are aware of the importance of continuing education in their field.

The learning outcomes of the Harcum College MLT program are:

1. Graduates will analyze laboratory results to diagnose disease and recommend treatment for pathologic conditions.
2. Graduates will demonstrate effective written and verbal communication skills.
3. Graduates will demonstrate mastery of laboratory methodologies, including problem solving and troubleshooting techniques, for the major areas currently practiced by a modern clinical laboratory.
4. Graduates will summarize the significance of continued professional development.
5. Graduates will create a plan to demonstrate technical training sufficient to orient new employees.
6. Graduates will explain the importance of laboratory safety and regulatory compliance.

Upon completion of program requirements, MLT students are eligible to sit for the Board of Certification examination. The granting of a degree from Harcum College is not contingent upon the passing of the certification examination.

### **Program Officials, Faculty, and Other Contact Numbers**

Harcum College President: Dr. Jon Jay DeTemple

Executive Vice President of Academic  
And Legal Affairs: Dr. Julia Ingersoll, J.D.

Program Director: Dr. Donna Broderick, MLS (ASCP)<sup>CM</sup>  
Office Telephone Number: 610-526-6662  
Email: [dbroderick@harcum.edu](mailto:dbroderick@harcum.edu)  
Fax: 610-675-2666

Clinical Coordinator: Kristy Matulevich, MLS (ASCP)<sup>CM</sup>  
Office Telephone Number: 610-526-1864  
[kmatulevich@harcum.edu](mailto:kmalevich@harcum.edu)  
Fax: 610-675-2666

Harcum College Lab Science Mailing Address: Harcum College - OMGC Campus  
Office Suite 42  
31 Pennswood Rd  
Bryn Mawr, PA 19010

MLT Office Fax: (Practicum paperwork Fax)	610-675-2666
Financial Aid Office:	610-526-6197
Office of Student Accounts:	610-526-6003
Office of Student Records:	610-526-6010
College Store:	610-526-6041
MLT Faculty:	<p>Dr. Donna Broderick, MLS (ASCP)<sup>CM</sup> Associate Professor Program Director <a href="mailto:dbroderick@harcum.edu">dbroderick@harcum.edu</a></p> <p>Ms. Kristy Matulevich MLS (ASCP)<sup>CM</sup> MLT Clinical Coordinator, Instructor <a href="mailto:kmatulevich@harcum.edu">kmatulevich@harcum.edu</a></p> <p>John Flynn PhD, MT (ASCP), SBB Adjunct Faculty: Instructor <a href="mailto:jflynn@harcum.edu">jflynn@harcum.edu</a></p> <p>Ms. Marie DiNunzio MT(ASCP) Adjunct Faculty: Instructor <a href="mailto:mdinunzio@harcum.edu">mdinunzio@harcum.edu</a></p>

## **Admissions Requirements**

### A. Minimum Entrance Requirements:

- High School Algebra 2 and Geometry
- 2 units of High School Science
- 3 units of High School English
- Current SAT scores
- 1 letter of recommendation
- Completed essay
- GPA of 2.0 or greater

### B. Provisional Acceptance:

Students with a GPA of less than 2.0 may be admitted on a provisional basis. This decision is based upon a review of records and college placement test scores. Satisfactory performance is defined as earning a 2.0 or greater after completing 12 credits. Students with a high school

GPA of 2.0 or less are recommended to participate in the Early Entry Program which takes place on the Harcum Campus during the summer months before the first year or extend their education for a period of 3 years.

### **Admissions Procedures**

Students seeking admission to the MLT Program should apply to the Harcum College Office of Admissions. Admission applications are reviewed by the admissions staff and the MLT Program Director.

Students may apply for admission during any semester or summer session. Fall semester starts are recommended for students who meet all admission requirements. Spring or summer starts are recommended for provisional students since they may require an extra semester to complete preliminary course work.

Admission questions should be directed to the Admissions Office at 610-526-6050. Program specific questions should be directed to the MLT Program office at 610-526-6662, or email at [dbroderick@harcum.edu](mailto:dbroderick@harcum.edu).

### **MLT Basic Competencies / Career Entry Skills**

Upon graduation, and at the time of employment, a medical laboratory technician will be able to demonstrate the following entry-level competencies:

Medical Laboratory Technicians are proficient in:

- a. Collecting, processing and analyzing biological specimens and other substances.
- b. Performing analytical tests on blood, body fluids, and other substances.
- c. Recognizing factors that affect procedures and results, and taking appropriate actions, within predetermined limits, when corrections are indicated.
- d. Performing and monitoring quality assurance and quality control within predetermined limits.
- e. Performing preventive and corrective maintenance of equipment and instruments or referring to appropriate source for repairs.
- f. Applying principles of safety.
- g. Demonstrating professional conduct and interpersonal communication skills with patients, laboratory personnel, other health care professions, and with the public.
- h. Recognizing the responsibilities of other laboratory and health care personnel and interacting with them with respect for their jobs and patient care.

- i. Applying basic scientific principles in learning new techniques and procedures.
- j. Relating laboratory findings to common disease processes.
- k. Establishing and maintaining continuing education as a function of growth and maintenance of professional competence.

## **Program Requirements :**

### **A. Essential Cognitive Functions:**

The MLT student must possess the following intellectual skills:

- communicate effectively in written and spoken English
- possess and apply mathematical skills
- possess the psychological health required for full utilization of abilities: reasoning, sound judgment, analytic ability

### **B. Essential Psychomotor Functions:**

The MLT student must be able to:

- move freely from one location to another in physical locations such as the clinical laboratory, patient care areas, corridors, and elevators
- possess sufficient eye motor coordination to allow delicate manipulations of specimens, instruments, and tools
- grasp and release small objects (test tubes, pipettes, microscope slides)
- manipulate other laboratory materials (reagents, manual and automated pipettes, etc.)
- identify and distinguish objects macroscopically and microscopically
- lift and move objects of at least 20 pounds
- possess a sense of touch and temperature discrimination
- use hands for repetitive activity

### **C. Essential Affective Functions**

The MLT student must be able to:

- follow written and verbal directions
- work effectively under time constraints and under pressure
- work independently
- prioritize workload, according to laboratory department needs, when multitasking
- maintain alertness and concentration in a loud and hectic environment
- apply knowledge, skills, and values learned from course work and life experiences to new situations
- work safely with potential chemical, radiological, and biologic hazards using universal precautions

- show respect for self and others
- projects an image of professionalism including appearance, dress, and confidence

#### **D. Professional Appearance / Uniforms**

Students will be provided a lab coat for MLT student labs. Students are required to wear close toed, impervious, rubber soled shoes; long hair must be tied back.

Students are required to wear Harcum specific scrubs and a lab coat when they attend their clinical practicum their final semester. Students will receive ordering information prior to their clinical practicum.

**KEN ALLEN UNIFORMS**

Phone [\(610\) 439-1201](tel:6104391201)

Fax [\(610\) 439-8011](tel:6104398011)

[kenallenuniforms@gmail.com](mailto:kenallenuniforms@gmail.com)

The hospital will provide laboratory coats for use in the facility.

Students will adhere to the dress code of the hospital and are expected to dress neatly and professionally. Tattoos should not be visible. Clear gauges must be used for facial piercings. Hair should be secured from the face in an orderly manner. Only modest jewelry and minimum fragrance is appropriate.

Students must wear a lab coat, gloves, and use protective splash shields for all clinical lab classes. Closed-toed shoes with rubber soles are required.

#### **E. Student Health Requirements**

All MLT students must complete the Harcum College Health Center medical requirements and clearances prior to registration for classes. Students will complete these requirements through **CastleBranch.com**

Students should be aware that they will be working with potentially infectious materials in student labs and clinical sites.

**Students who have failed to complete these requirements will not be registered for student labs.**

Students are also required to maintain general health insurance coverage throughout the program.

To access the **CastleBranch** site

site go to: [www.CastleBranch.com](http://www.CastleBranch.com)

enter correct 6 character package code as outlined below:

HF39 + State of Residence Abbreviation – Background Check, Drug Test & Medical Document Manager

(Examples : HF39pa, HF39ny, HF39ca)

When ordering the Child Abuse Clearance, select:

Other, then, Non-Applicable

**For students needing to order the Drug test only:**

HF39dt – Drug Test ONLY package (Please order your drug test within 30 days of practicum)

You will then be directed to set up your CastleBranch account.

CastleBranch is a secure platform that allows you to order your Background Check, Medical Document Manager & Drug Test online.

Below are lab tests/documentation to be completed through CastleBranch:

- Current flu vaccine
- Quantiferon Gold test, documentation of a chest X-ray is required if positive
- 3 doses of Hepatitis B vaccine and a positive Hepatitis B antibody
- Measles (Rubeola) titers
- German measles (Rubella) titers
- Chicken Pox (Varicella) titers
- Mumps titers
- Tdap (tetanus, diphtheria, pertussis) within past 10 years
- Criminal Background Check
- Child Abuse Clearance
- Physical exam
- Authorization of release of medical records form
- Evidence of US Citizenship or valid work visa
- FBI Fingerprinting

In addition, students will need to complete the following tests within 30 days of beginning the MLT practicum:

- Drugs of Abuse Screen

Students who are currently employed at clinical sites can use the information on file at their employee health department.

## **F. Clinical Placement Policy**

The following policy will be implemented in the event that student enrollment exceeds clinical placement availability:

MLT students qualify for clinical placement if they maintain a grade point average of 2.0 or higher in all MLS and General Science/Math (CHE, BIO, MTH) courses, as well as maintain a minimum grade point average of 2.0. If the number of students qualifying for practicum placement exceeds the clinical positions available, you may be placed on a waiting list for clinical assignments.

Placement at the clinical site from the waiting list will be based on program admission date and successful completion of all courses in the program prior to the clinical practicum.

The MLT program director and clinical coordinator will take student's preference into consideration, but students cannot be guaranteed a particular site. Students should be prepared for potential changes to site assignment.

Completion of the practicum objectives will be organized for distance students. The student will acquire a clinical site coordinator who will check that each activity is completed, and assign a grade for each activity.

Every effort will be made to accommodate students who desire placement outside of our current clinical affiliates; however there is no implied nor stated guarantee.

**Requirements for Online Courses**

**Students are required to have audio/visual capabilities (computer microphone and camera) for interaction and presentations essential for online and blended courses.**

Students are provided log-on information to all LMS courses at least one week prior to the start of each course. It is strongly recommended that students order textbooks as soon as possible. It is the responsibility of the student to learn how to navigate the LMS online course management system.

**LMS Computer requirements:**

▸ Operating systems supported:

 <p><b>PC OS Requirements:</b></p>	 <p><b>Mac OS Requirements:</b> *Mac computers are NOT recommended</p>
<ul style="list-style-type: none"> <li>• Windows 2007 or newer</li> </ul>	<ul style="list-style-type: none"> <li>• OS X or later with dual processor compatible with flash player</li> </ul>

 <p><b>Cross Compatible Browsers in PC Environment:</b></p>
<p>Courses require Microsoft Word and PowerPoint versions 2013 or later. Adobe Acrobat Reader free plug-in available on the LMS home page</p> <p>Latest versions of Internet Explorer, Firefox, and Chrome required</p>

For a complete listing of requirements and online expectations go to:

[Technical Requirements](#)

## **Program Description**

The MLT Program is designed to consist of four (4) semesters and one (1) summer session. The final semester (Spring) consists of an off-campus clinical practicum. **Students attend the practicum on a full-time day schedule, Monday through Friday, during the final semester.** Successful fulfillment of the program leads to the conferral of the Associate Degree as a Medical Laboratory Technician.

### **A. Course Description**

Listed below are required courses as noted on the curriculum outline found on page 19. The curriculum outline shows the criteria for progression through the MLT program.

### **Description of MLT required courses:**

#### **Biology:**

##### **101 General Biology I**

This course is designed to enable the student to gain a comprehensive understanding of the natural world. Topics include cytology, genetics, and an introduction to molecular biology. Laboratory exercises will emphasize the application of the scientific method to resolving biological problems

##### **205 Microbiology**

This course presents a study of bacteria, viruses and fungi relative to their size, shape, life processes, cultural characteristics and classifications.

Bacterial disease, immunity and sterilization are considered. Laboratory work includes the making of specific uses of culture media plus specific training in staining techniques.

#### **Chemistry:**

##### **Chemistry Elective**

A 4-credit College level chemistry, including a lecture and lab is required for the MLT program. CHE 103: Introduction to Chemistry is the recommended course offered at Harcum College.

CHE 103 Course description:

This laboratory course covers basic chemistry skills such as atomic structure, writing chemical formulas, balancing equations, and basic stoichiometry.

## **Math:**

### **113 College Mathematics**

Essentials of algebra as well as certain more advanced pre-calculus topics that are of basic importance in the technical programs are discussed. Topics include simplification and manipulative techniques of linear, quadratic and higher-degree algebraic expressions, applied problems and graphs involving algebraic equations of one and two unknowns, exponents, and radicals. College Mathematics is required before taking

## **Social Science:**

### **PSY 111 Introductory Psychology**

This course is an introductory, general survey course in the study of human behavior and current and past theories. The course includes basic material on the history of psychology, principles of learning, the psychological processes of motivation, perception, emotion and sensation, intelligence, measurement, elementary concepts of personality, frustration and conflict and the influence of the brain on behavior.

## **Diversity:**

### **SOC 109 Principles of Sociology**

This course is an introduction to the basic concepts necessary for the systematic study of human interaction and social structure. The course provides a sociological perspective for the analysis of culture, personality, social institutions, groups, social structure, social processes and interrelations. Integrative and disintegrative aspects of social organizations are examined in their relation to social order and social change.

## **English:**

### **101 Composition I**

This course in basic writing provides instruction in principles of written and oral expression centering on the writing of themes using literary modes. Short stories and essays are studied for understanding of content, structure and form.

### **102 Composition II**

This course continues with instruction in principles of written and oral expression with further emphasis on the writing of themes using literary modes. Plays and poems are studied for understanding of content, structure and form. Prerequisites: ENG 101 with a grade of "C" or higher.

## **Humanities:**

### **122 Music Appreciation**

This course traces the development of western music from the Renaissance to the Modern era period. Major composers and their representative works, musical forms and instruments are reviewed. Essential elements of music and multicultural influences are discussed. Recordings and professional concerts are used for illustration.

## **Computer Studies:**

### **AHS 103: Research Methods and Computer Applications**

This course will serve as an introduction for students to develop effective research strategies in accessing information from various online resources and will impart basic computer literacy skills necessary to utilize Microsoft software applications efficiently (Word, Excel, PowerPoint and Publisher).

## **Clinical Courses:**

### **MLS 101 Introduction to MLT**

This course introduces the student to the many aspects of the clinical laboratory, and provides an introduction of procedures performed in each lab department: Chemistry, blood bank, serology, urinalysis, microbiology, and hematology, focusing on specimen collection, safety and infection control, quality control, legal/ethical considerations, and application of computers in the laboratory setting.

### **MLS 140 Applied Laboratory Techniques I**

Students will be introduced to laboratory methods in manual and automated specimen testing, quality control, and use of universal precautions in the clinical setting. Each lab session will focus on a particular area of the clinical laboratory and will include chemistry, hematology, urinalysis, microbiology and serology.

### **MLS 113 Basic Hematology and Microscopy**

This course provides a thorough background in the study of hematology focusing on the development and function of red cells, white cells, and platelets. The analysis of other body fluids including urine and spinal fluid will be explored.

### **MLS 114 Applied Hematology and Microscopy Lab**

This course provides “hands-on” application of material presented in MLS 113. Students study normal and abnormal blood cells and demonstrate proficiency in performing differential cell counts. The binocular microscope is used to examine cells in blood, urine and other body fluids.

**MLS 130 Immunology**

This course covers the basic theory of immunology along with infectious disease, diseases of the immune system, and the role of serological testing in diagnosis and treatment of these diseases. Students will learn multiple and serial dilutions and how to use these techniques in the clinical laboratory setting.

**MLS 211 Clinical Chemistry**

This course will prepare students for their chemistry laboratory rotation as part of the hospital practicum by reviewing chemical constituents of the human body, disease states, and instrumentation used in chemistry analysis. Case studies will be used to identify pathologic conditions.

**MLS 212 Clinical Hematology and Coagulation**

This course will prepare students for their hematology laboratory rotation as part of the hospital practicum by reviewing both standard and specialized hematology tests and applying test results to case studies in order to identify pathologic states of the blood cells. The process of coagulation will also be explored. Students will study the appropriate testing techniques to identify coagulation disorders.

**MLS 213 Clinical Immunohematology**

This course will prepare students for their blood bank rotation as part of the hospital practicum by reviewing standard and specialized immunohematology procedures required to transfuse a patient successfully with blood products. Students will discuss transfusion reaction case studies.

**MLS 214 Clinical Microbiology**

This course will introduce the student to the wide variety of pathological microorganisms that can affect man and how to differentiate these pathogens from normal flora. It will explore the many aspects of identification using specialized media and biochemical testing. A review of processing body fluids in the microbiology lab will be included, as well as comparing antibiotics used to fight infection

**MLS 240 Applied Lab Techniques II**

Students correlate theory learned in senior level MLT courses to tests performed in the clinical laboratory. Manual and automated methodology will be used to perform advanced procedures in microbiology, hematology, blood bank, serology and clinical chemistry

**Practicum Courses:**

The following courses are held at the clinical site. The student will rotate through each section of the laboratory, learning hands-on techniques in laboratory practices.

MLS 221            Applied Laboratory Techniques in Chemistry

MLS 222            Applied Laboratory Techniques in Hematology,

MLS 223	Applied Laboratory Techniques in Immunohematology
MLS 224	Applied Laboratory Techniques in Microbiology
MLS 225	Applied Laboratory Techniques in Serology
MLS 226	Applied Laboratory Techniques in Coagulation
MLS 227	Applied Laboratory Techniques in Urinalysis

**MLS 230 MLT Certification Prep Seminar**

This course will provide the student with the tools to prepare for success on the ASCP MLT Board of Certification Exam. The student will access pre and post - tests in all areas of Clinical Laboratory Science and will receive personal instruction to overcome areas of weakness.

**Practicum Hours:**

**Students attend the practicum on a full-time day schedule, Monday through Friday, during the final semester.**

**B. Clinical Site Information:**

Harcum College has an ongoing relationship with many clinical sites, especially in the Philadelphia region. Clinical site availability may change from year to year. An updated site list will be provided by the clinical coordinator prior to registration for the practicum. For a current comprehensive list of clinical site availability, please contact the MLT clinical coordinator. **Students will be assigned clinical placement based on availability, not location.**

**C. Progression through the Program:**

The Assistant Program Director will prepare individualized academic plans. Students are expected to adhere to their academic plan. Failure to follow the academic plan may result in program dismissal. Students must maintain a C average in the following courses to progress through the program:

MLS 101	MLS 211
MLS 140 lab	MLS 212
MLS 130	MLS 213
MLS 113	MLS 214
MLS 114 lab	BIO 205
MLS 230	MTH 113
MLS 240 lab	CHE elective

#### **D. Curriculum Outline:**

The MLT curriculum outline is designed to aid the students in their progression in the program.

The total number of credits for completion of the MLT program at Harcum College is 74.

Courses in the MLT curriculum are offered as online courses or Face2Face (on campus) courses as indicated below:

MLS 101,113,130,211,212, 213, 214, 230 are offered online only.

BIO 205 and Chemistry are offered on-campus only. These courses can be transferred from other accredited colleges.

The MLT on-campus labs: MLS 140, MLS 114, MLS 240 are held on 5 Saturdays throughout the semester from 9am-3pm.

A copy of the course outline is provided on the following page:



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Completion of the courses listed below is required for your degree. Please refer to the current Harcum College catalog for course descriptions as well as course pre-requisites and/or co-requisites.

On the blank lines next to each course, note the semester you took the course and the grade you earned. Also note if you transferred credits for any of these courses or had any of these courses waived.

### **FIRST SEMESTER – Fall**

	Semester	Grade
ENG 101 Composition I	3 cr. _____	_____
MLS 101 Intro to MLT	3 cr. _____	_____
MLS 140 Applied Lab Techniques I	1 cr. _____	_____
MTH 113 College Math	3 cr. _____	_____
AHS 103 Research and Comp. App.	3 cr. _____	_____
BIO 101 Gen. Biology 1 & lab	4 cr. _____	_____
	Total: 17 cr.	

### **SECOND SEMESTER - Spring**

ENG 102 Composition II	3 cr. _____	_____
CHE Elective	4 cr. _____	_____
BIO 205 Microbiology & Lab	4 cr. _____	_____
MLS 113 Basic Hematol. & Microscopy	3 cr. _____	_____
MLS 114 Applied Hematol. & Micro. Skills	1 cr. _____	_____
MLS 130 Immunology	3 cr. _____	_____
	Total: 18 cr.	

*Chemistry and BIO 205 are prerequisites/corequisites to MLS 113 and MLS 114*

### **SUMMER SESSION**

SOC 109 Principles of Sociology	3 cr. _____	_____
HUM Humanities Elective	3 cr. _____	_____
PSY 111 Intro to Psychology	3 cr. _____	_____
	Total: 9 cr.	

### **THIRD SEMESTER – Fall**

MLS 211 Clinical Chemistry	3 cr. _____	_____
MLS 212 Clinical Hemo. & Coag.	3 cr. _____	_____
MLS 213 Clinical Immunohematology	3 cr. _____	_____
MLS 214 Clinical Microbiology	3 cr. _____	_____
MLS 240 Applied Lab Techniques 2	1 cr. _____	_____
	Total: 13 cr.	

### **FOURTH SEMESTER\* – Spring \*: Fourth Semester is Full-Time Day Commitment**

MLS 230 MLT Certification Prep Seminar	1 cr.
MLS 221, 222, 223, 224, 225, 226, 227	16 cr.
	Total: 17 cr.

**Total Program credits = 74**

The following information can be found in the current Harcum College catalog through the Harcum College website at [www.harcum.edu/catalog](http://www.harcum.edu/catalog)

### **Academic Standards and Graduation Requirements**

A student enrolled in the Medical Laboratory Technician Program at Harcum College is expected to maintain a 2.0 GPA (grade point average), and a "C" grade for all science, mathematics, Clinical laboratory and clinical lecture components in the curriculum. Failure to meet these standards will result in:

#### **A. Academic Probation:**

GPA less than 2.0 or below a "C" in one mathematics or science course or clinical component. A student who withdraws from or unsatisfactorily completes any mathematics or science course or clinical component in the MLT curriculum will be placed on probation until the deficiency is corrected.

If the student is placed on academic probation, he/she will be notified of this in writing and will remain on probation and have up to one year to correct the deficiency. If the student is on probation at the clinical affiliate site, the student's progress will be reviewed at weekly intervals. If there has been little or no improvement, the student may be dismissed from the program. If a student wishes, he/she may appeal the final decision and present evidence for consideration to the MLT Program Director and the MLT Advisory Committee.

#### **B. Dismissal From the Program:**

GPA less than 2.0, or below "C", or withdrawal in two or more mathematics or science courses or clinical components or any combination of two of these. This will be the decision of the MLT Program Director in conjunction with the MLT Advisory Committee. The student may wish to appeal this decision and may present evidence for consideration by the committee at this time. Within fifteen calendar days of the student's awareness of the Committee's decision, if a satisfactory resolution still has not been achieved, the student should proceed with the college's grievance procedure as note in the college catalog.

**Non-Academic Standards:**

A student enrolled in the Medical Laboratory Technician Program is required to comply with the policies of the college and the clinical affiliate regarding attendance, dress, conduct, etc. Failure to comply with these rules and regulations may result in non-academic probation.

**Non-Academic Probation/Appeal:**

If a student has failed to comply with the policies of the college or the clinical affiliate regarding attendance, punctuality, dress, conduct, etc., he/she may be given a maximum of two written warnings. If the unsatisfactory behavior still continues, the student will be placed on probation. The student will be informed of this in writing. At weekly intervals, the student's progress will be reviewed by the MLT Program Director and Clinical Site Coordinator. A decision will be made to continue the probation or dismiss the student. If the student wishes to appeal this decision, he/she may present evidence for consideration to the MLT Advisory Committee.

**C. Grading System:**

<u>Letter Grade</u>	<u>Numerical Grade</u>	<u>Grade Point</u>
A	95-100	4.0
A-	90- 94	3.7
B+	87- 89	3.3
B	83- 86	3.0
B-	80- 82	2.7
C+	77- 79	2.3
C	73- 76	2.0
C-	70- 72	1.7
D+	67- 69	1.3
D	63- 66	1.0
D-	60- 62	0.7
F	Below 60	0.0

**W Withdrawal** - Assigned when a student withdraws from a course

**D. Other Policies:**

Repeating a Course:

If a student repeats a course, all grades received for that course will appear on the record. However, the last grade achieved for the course will be used in the computation of the cumulative grade point average.

**MLT students may only repeat a course one time.**

Audit Policy:

The audit grade is given at the discretion of the instructor in consultation with the student. Anyone wishing to audit any or all clinical courses may be granted permission after discussion with the MLT Program Director.

Course Changes:

Students are permitted to add or drop courses during the scheduled "Add and Drop" period. Check the current academic calendar for add/drop dates. Students must first contact their MLT advisor.

Program Changes:

Students who are presently enrolled at Harcum College but wish to enter the MLT program should contact the MLT Program Director. A "Change of Program" form must be completed by the student, the new and the former Program Director.

If a student who is presently enrolled in the MLT program wishes to withdraw from the program or the college, or is dismissed for academic or non-academic reasons, they must contact the MLT Program Director who will guide them through the withdrawal process

Teach-Out Plan

In the event that a catastrophic event occurs that results in an interruption of the college's ability to operate the MLT Program, the program director will make every effort to move to another location. Attempts will be made to accommodate courses at clinical affiliates.

In the event that a catastrophic event halts the operation of one or more of the MLT Program's clinical affiliates, steps will be taken to place students at other functioning clinical sites to finish the remainder of their training.

In the event of an administrative decision to suspend operation of the MLT Program, new students will not be admitted to the program, but current students will follow their academic plan to complete the program requirements.

Fees:

- CastleBranch registration (Medical and Background Check Requirements)
- Uniform Fee (Clinical Practicum)
- Board of Certification Exam Registration

## **E. Academic Appeal:**

### **Academic Appeal/Grade**

The student may appeal grading by a faculty member up to within two weeks of the following semester. The student must, in writing, document why she considers the grade to be unfair and present it to the faculty member who will respond within ten business days. The student must present supporting evidence, i.e., tests, papers, and other supporting documents, to the faculty member. If this appeal is denied, the student may appeal to the Program Director in writing within ten days. If this appeal is denied, the student may appeal to the Executive Vice President of Academic Affairs, in writing, who will respond within ten business days. If still denied, the student may appeal to the President of the College.

### **Academic Appeal/Other Grievances**

If a student has a cause for grievance in academic matters, the student is requested to meet with the faculty member involved. If an agreeable decision is not reached, the student should then request a meeting with the Program Director to discuss the matter. There are four academic divisions of the college: Health Science, Business and Professional Studies, Liberal Arts, and Science and Math.

If further steps are necessary, Executive Vice President of Academic Affairs, should be consulted. The Executive Vice President of Academic Affairs may convene an adhoc grievance board consisting of two faculty members, two students, and a fifth member from the College community. Board members will be approved by both parties and will act in an advisory capacity to the Dean.

Complete Appeal Procedure can be found in the Harcum College Student Handbook for non-academic matters and the Harcum College Catalog for academic matters. The Harcum College Student Handbook / Code of Conduct is located online through the Harcum website.

### **Return for Additional Study**

The College reserves the right to invite only those students whose progress and conduct have been satisfactory to return for a consecutive second year of study.

**F. Attendance:**

Consistent attendance and punctuality are essential characteristics for a responsible professional in the clinical laboratory field. Therefore, the student is strongly advised to follow the schedules established in the online courses and not miss time during the student labs or clinical training. To do so may result in course failure or unfavorable evaluations at the conclusion of the program.

The student will be requested to withdraw from the internship if habitual tardiness or absenteeism develops. If such a withdrawal is requested, the student will not be placed in another clinical site.

**G. Graduation Requirements**

In order to receive an Associate Degree from Harcum College, the following criteria must be met:

- Earn the required number of credits in the MLT program. The MLT curriculum consists of 74 credits
- Enrollment in Harcum courses during the final semester is mandatory. The MLT practicum is considered a Harcum course
- Maintain a minimum GPA of 2.0
- All financial obligations to the college must be fulfilled.

**H. National Council for State Authorization Reciprocity Agreements (SARA)**

SARA has no effect on state professional licensing requirements. It is the student's responsibility to ensure that Harcum College's Lab Science Program meets the qualifications for state licensure. State contact information can be found here: <http://www.ascls.org/advocacy-issues/licensure>

**Textbooks:**

**MEDICAL LABORATORY TECHNICIAN TEXTBOOK LIST**

Confirm current book and edition in Follett, our online bookstore,  
[Campus Store Textbook Order Information](#)

**MLS 101: Intro. to MLT**

Palko's Medical Laboratory Procedures  
3rd edition  
Phyllis Cox, Danielle Wilken  
ISBN# 978-0-07-340195-9  
[www.mhhe.com](http://www.mhhe.com)

Mathematics for the Clinical Laboratory  
3rd edition  
Lorraine J. Douchette  
ISBN# 978-0-323-33996-4  
[www.us.elsevierhealth.com](http://www.us.elsevierhealth.com)

**MLS 140: Lab**

Palko's Medical Laboratory Procedures  
3rd edition  
Phyllis Cox, Danielle Wilken  
ISBN# 978-0-07-340195-9  
[www.mhhe.com](http://www.mhhe.com)

Mathematics for the Clinical Laboratory  
3rd edition  
Lorraine J. Douchette  
ISBN# 978-0-323-33996-4  
[www.us.elsevierhealth.com](http://www.us.elsevierhealth.com)

**MLS 113: Hematology and Microscopy**

Clinical Hematology and Fundamentals of Hemostasis  
5th edition  
Denise Harmening  
ISBN #0-8036-1732-1  
[www.FADavis.com](http://www.FADavis.com)

Urinalysis and Body Fluids  
6<sup>th</sup> edition  
Strasinger, DiLorenzo  
ISBN# 978-08-03-6392-01  
[www.FADavis.com](http://www.FADavis.com)

Mathematics for the Clinical Laboratory  
3rd edition  
Lorraine J. Douchette  
ISBN# 978-0-323-33996-4  
[www.us.elsevierhealth.com](http://www.us.elsevierhealth.com)

**MLS 114 Lab: Hematology and Microscopy Lab**

Clinical Hematology and Fundamentals of Hemostasis  
5th edition  
Denise Harmening  
ISBN #0-8036-1732-1  
[www.FADavis.com](http://www.FADavis.com)

Mathematics for the Clinical Laboratory  
3rd edition  
Lorraine J. Douchette  
ISBN# 978-0-323-33996-4  
[www.us.elsevierhealth.com](http://www.us.elsevierhealth.com)

**MLS 130: Immunology**

Immunology and Serology in Laboratory Medicine  
6th edition  
Mary Louise Turgeon  
ISBN # 9780323431477  
[www.us.elsevierhealth.com](http://www.us.elsevierhealth.com)

**MLS 211: Clinical Chemistry**

Clinical Chemistry: Techniques, Principles, and Correlation  
8th edition  
Bishop, Fody, Schoeff  
ISBN 978-1-4963-3558-6  
[www.lww.com](http://www.lww.com)

Mathematics for the Clinical Laboratory

3rd edition  
Lorraine J. Douchette  
ISBN# 978-0-323-33996-4  
[www.us.elsevierhealth.com](http://www.us.elsevierhealth.com)

**MLS 212: Clinical Hematology and Coagulation**

Clinical Hematology and Fundamentals of Hemostasis  
5th edition  
Denise Harmening  
ISBN #0-8036-1732-1  
[www.FADavis.com](http://www.FADavis.com)

**MLS 213: Clinical Immunohematology**

Modern Blood Banking and Transfusion Medicine 7th Ed.  
Denise M. Harmening  
F.A. Davis Publishers  
ISBN # 978-0-8036-6888-1  
[www.FADavis.com](http://www.FADavis.com)

**MLS 214: Clinical Microbiology**

Bailey and Scott's Diagnostic Microbiology  
14th edition  
Patricia Tille  
ISBN# 978-032-33548-20  
[www.us.elsevierhealth.com](http://www.us.elsevierhealth.com)

**MLS 230: MLT Certification Prep Seminar and all Practicum Labs**

Medical Laboratory Science Review, 5th Edition  
Robert R. Harr  
ISBN-13: 978-0-8036-6827-0  
[www.FADavis.com](http://www.FADavis.com)

Quick Review Cards for Medical Laboratory Science  
2<sup>nd</sup> edition  
Valerie Dietz Polansky  
ISBN 13:978-0-8036-2956-1  
[www.FADavis.com](http://www.FADavis.com)

## **Harcum Hatch Portal Access, Course Registration using Self-Service, Email and LMS Access**

### **Follow these steps to access the Harcum Hatch Portal.**

1. Go to the Harcum College website at [www.harcum.edu](http://www.harcum.edu) and click on the “bear” icon to enter the Harcum Hatch portal
2. Enter username and password  
**For security reasons, we recommend that you change this password immediately**

### **To Access the Self-Service Registration module:**

1. Click on the Power Campus button
2. Click on the register tab
3. Click on Academic Plan
4. Select the name of your program
5. Click on the “magnifying glass” next to the course you want to select
6. Find the session that you want, and click on the “add” button  
The course/courses selected will be added to your cart
7. To add more courses, click on “academic plan” under “related links”, repeat steps 4-6
8. When you are ready to submit your courses for advisor’s approval, click the “proceed to registration” button  
or  
Go to “cart” at the top of the screen and click the “registration” button
9. Click “next” at bottom of screen. A message will appear. If you are unable to register for some courses.  
If no message appears, proceed to step 10
10. Click “next” again. You will receive a message that you have submitted your schedule for your advisor’s approval  
When you have selected your courses, an email will be sent to your advisor for approval  
Enter username and password  
**For security reasons, log out and close browser when finished**

### **To Access Harcum email and LMS:**

Click on the clearly labeled icons “Google” and “Canvas”

### **For support, contact the Harcum IT department:**

610-526-1867

[support@harcum.edu](mailto:support@harcum.edu)

**MLT STUDENT HANDBOOK  
SIGNATURE PAGE  
STUDENT AGREEMENT**

I have received the MLT Student Handbook. I agree to read the handbook and affirm that I will be responsible for all the data therein. I understand and am aware of the contents listed below, as indicated by my initials.

Please initial each item and indicate the page number where each item was found:

- \_\_\_\_ Program accreditation p. \_\_\_\_
- \_\_\_\_ Program information p. \_\_\_\_
- \_\_\_\_ Essential functions p. \_\_\_\_
- \_\_\_\_ Requirements for online courses p. \_\_\_\_
- \_\_\_\_ Graduation requirements p. \_\_\_\_
- \_\_\_\_ Academic standards p. \_\_\_\_
- \_\_\_\_ Curriculum and course sequence p. \_\_\_\_
- \_\_\_\_ Clinical Placement Policy p. \_\_\_\_
- \_\_\_\_ Progression through the program/ academic plan p. \_\_\_\_
- \_\_\_\_ Student health requirements (CastleBranch completion deadline) p. \_\_\_\_
- \_\_\_\_ Ordering textbooks p. \_\_\_\_
- \_\_\_\_ Practicum hours (Full time) p. \_\_\_\_
- \_\_\_\_ Dismissal from program p. \_\_\_\_
- \_\_\_\_ Other policies p. \_\_\_\_
- \_\_\_\_ Acknowledgement of required computer audio/visual capability p. \_\_\_\_
- \_\_\_\_ SARA /licensure p. \_\_\_\_ (OUT OF STATE STUDENTS ONLY)

I agree to abide by all the rules, policies, and procedures of the program.

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Month/Year of handbook (see cover page) \_\_\_\_\_

Date of Signature: \_\_\_\_\_