

MEDICAL LABORATORY TECHNOLOGY

PROGRAM OVERVIEW

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The Medical Laboratory Technology (MLT) Curriculum provides education and experience for those seeking employment in hospital and private clinical laboratories, research facilities, industry, health centers, and doctors' offices. Emphasis is placed on the development of those personal characteristics and professional skills essential to the competent worker in the field of medical technical work. The traditional Medical Laboratory Technician as a vital member of the health care team performs a variety of diagnostic procedures in the areas of hematology, clinical microscopy, clinical chemistry, blood banking, microbiology, serology, and coagulation.

This is a competitive admission program with courses and clinical experiences prescribed by the National Accrediting Agency for the Clinical Laboratory Sciences. The program consists of clinical and non-clinical components. Clinical experiences necessary to gain knowledge and clinical competency for employment are obtained at: University of Pittsburgh Medical Center – Western Maryland, Cumberland, MD; University of Pittsburgh Medical Center – Bedford Memorial, Bedford, PA; University of Pittsburgh Medical Center - Somerset Hospital, Somerset, PA; Meritus Medical Center, Hagerstown, MD; Garrett Regional Medical Center – WVU Medicine, Oakland, MD, Gonzaga Pain Management, LaVale, MD, Grant Memorial Hospital, Petersburg, WV; Penn Highlands Huntingdon, Huntingdon, PA; Frederick Memorial Hospital, Frederick, MD.

Practicum assignments for students shall be structured so that experiences are obtained in applying skills and knowledge under the supervision of clinical staff and MLT department faculty members. The College arranges the site and supervisor for the student to complete 448 hours of unpaid practicum experience during the practicum courses of the Phlebotomy/Laboratory Assistant program. In order to participate in practicum experiences, a satisfactory health record and a Criminal Record Check must be completed. If participating in practicums at a Pennsylvania clinical site, the student must obtain a Child Abuse History Clearance and a State Police and FBI background check. During enrollment any official change or the initiation of any governmental proceeding affecting the information revealed by the required criminal or child abuse background check must be reported immediately by the student to the director of the Medical Laboratory Technology/Phlebotomy program.

The Medical Laboratory Technology program at Allegany College of Maryland has been designated as a Health Manpower Shortage Program. The Maryland State Department of Health and Mental Hygiene has determined certain health occupations in the state to be in short supply. The Maryland Higher Education Commission has designated educational programs that correspond to these health occupations to be eligible for the Health Manpower Shortage Program. Maryland residents from counties other than Allegany County who register in this eligible program will be charged the out-of-county tuition rate. However, these students may be eligible to receive reimbursement for a portion of the cost difference between the in-county and out-of-county tuition rates. Funding availability for this program is based on funding from the State of Maryland and is thus subject to change each semester. Some restrictions apply. More information can be obtained by contacting the Admissions Office.

Additional costs to the student beyond tuition, fees, books, etc., are estimated to be approximately \$500 for uniforms, health assessment, background check, and vaccinations which are all required prior to beginning clinical rotations.

This is a career program and is designed to enable students to seek employment at the program completion. Some four-year Medical Technology also known as or Clinical Laboratory Science programs are articulated with the Allegany College of Maryland MLT program. Students planning to transfer should consult with their advisor or the Advising Center staff regarding specific program and course transfer issues.

Successful completion of this program qualifies a student to apply for an Associate of Applied Science degree in Medical Laboratory Technology.

PROGRAM ADMISSIONS

The selective admission process for the Medical Laboratory Technology (MLT) program will occur in the fall for admission into the Spring MLT clinical course semester. Students wishing to be accepted must complete a program application (and ACM application if not a current ACM student). Applications for the program should be received in the Medical Laboratory Technology Program Office by the priority deadline November 1st each year. Applications are available on the MLT website or in the MLT department. Applications are accepted until the program has reached enrollment capacity. If seats are available after initial selection is made, additional applications will be accepted at the discretion of the program director until all seats are filled.

ACM students will work to complete the required pre-requisite courses and will be eligible to enter the clinical phase when the admission criteria are met.

Transfer and fast-track students (with a previous degree completed) are also eligible to apply by November 1st to start in the spring semester. The same admission criteria will apply to all students. Any course accepted as a program prerequisite must be equivalent in content and credit hours to Allegany College of Maryland courses.

The admission criteria for both current ACM and all transfer students requires that a student first successfully complete 17-21 of the general education courses course credits, on a full- or parttime basis, with a minimum GPA of 2.0 to be considered for the clinical sequence of the Medical Laboratory Technology program. Students enrolled in these courses during the fall semester, may apply to the program and be accepted on a provisional basis pending successful completion of the courses.

The required courses for admission to the Medical Laboratory Technology program are listed below:

- English 101 – Freshmen English (3 credits)
- Biological Science 101 – General Biology (4 credits)
- Mathematics 102 – College Algebra (3 credits) OR Mathematics 109 – Probability and Statistics (3 credits)
- Social Science Elective (3 credits) OR Humanities Elective (3 credits)

- Completing one of the following science courses (3-4 credits):
 - Biological Science 116 – Human Biology (3 credits) *OR* Biological Science 201 – Human Anatomy & Physiology (4 credits) *OR* Biological Science 207 – Human Anatomy/Physiology of the Human I (4 credits)
 - Biological Science 204 – General Microbiology
 - Chemistry 100 – Elements of Chemistry (4 credits) *OR* Chemistry 101 – General Chemistry (4 credits)

MLT students must maintain the scholastic standards of the college and must achieve a grade of “C” or better in each MLT course. A passing (satisfactory) grade in both clinical and campus laboratories is also required. Failure to achieve a “C” grade in any MLT course may result in dismissal from the program since MLT courses are sequential and prerequisite for continuance. The MLT courses are designed to be completed within four consecutive college semesters. This normal progression within a two-year period may be interrupted. In order that continuity of the program be maintained, a maximum time limit of eight consecutive semesters (or four college years) will be allowed for completion of the program.

COURSE REQUIREMENTS

REQUIRED MLT COURSES

MLT-102	Hematology
MLT-104	Applied Immunology
MLT-106	Clinical Laboratory Mathematics and Quality System Assessment
MLT-110	Orientation to the Clinical Laboratory (Phlebotomy/Laboratory Assistant 110)
MLT-210	Clinical Practicum
MLT-221	Urinalysis and Body Fluids
MLT-222	Blood Banking
MLT-223	Clinical Microbiology
MLT-224	Clinical Chemistry
PBLA-111	Basic Phlebotomy Procedures

REQUIRED GENERAL COURSES

BIO-101	General Biology I
BIO-116	Human Biology
BIO-204	Microbiology
CHEM-100 or CHEM-101	Elements of Chemistry or General Chemistry I
ENG-101	English Composition I
MATH-102 or MATH-109	College Algebra or Probability and Statistics
MDAS-101	Essential Skills for Health Professional

REQUIRED ELECTIVE COURSES

Please consult with your advisor or the Advising Center staff for selecting appropriate elective courses for graduation.

Humanities Elective - 3 credits

Social and Behavioral Science Elective - 3 credits

PROGRAM PATH

MEDICAL LABORATORY TECHNOLOGY

TWO-YEAR CAREER PROGRAM

PREPARATION FOR EMPLOYMENT

<u>SUMMER SESSION</u>	<u>Credit Hours</u>
Biological Science 101 (General Biology I)	4
English 101 (English Composition I)	3
Total:	7
 <u>FIRST SEMESTER</u>	
Biological Science 116 (Human Biology)	3
Chemistry 100 or 101 (Elements of Chemistry or General Chemistry I)	4
Humanities Elective	3
Mathematics 102 or 109 (College Algebra or Probability and Statistics)	3
Medical Laboratory Technology 110/ Phlebotomy/Laboratory Assistant 110 (Orientation to the Clinical Lab)	1
Phlebotomy/Lab Assistant 111 (Basic Phlebotomy Procedures)	1
Total:	15
 <u>SECOND SEMESTER</u>	
Biological Science 204 (Microbiology)	4
Medical Laboratory Technology 102 (Hematology)	4
Medical Laboratory Technology 104 (Applied Immunology)	3
Medical Laboratory Technology 106 (Clinical Laboratory Mathematics and Quality System Assessment)	1
Social and Behavioral Science Elective	3
Total:	15
 <u>SUMMER SESSION (following second semester)</u>	
Medical Laboratory Technology 221 (Urinalysis and Body Fluids)	2
Medical Laboratory Technology 222 (Blood Banking)	4
Total:	6
 <u>THIRD SEMESTER</u>	
Medical Assistant 101 (Essential Skills for the Health Professional)	3
Medical Laboratory Technology 223 (Clinical Microbiology)	6
Medical Laboratory Technology 224 (Clinical Chemistry)	4
Total:	13
 <u>FOURTH SEMESTER</u>	
Medical Laboratory Technology 210 (Clinical Practicum) ¹	12
Total:	12
Total Credit Hours:	68

¹ Credit by examination is available in Medical Laboratory Technology 207 and 208 for those persons having previous laboratory training. Medical Laboratory Technology 210 can be substituted for Medical Laboratory Technology 207 and 208

NOTE: All courses specifically identified by course number are graduation requirements for this program.

ACCREDITATION

The MLT program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences. The National Accrediting Agency for the Clinical Laboratory Sciences has offices at 5600N. River Road Suite 720, Rosemont, IL 60018-5119; 847-939-8880. Graduates receive an Associate in Applied Science degree and are eligible to take the Medical Laboratory Technician certification examination administered by the American Society for Clinical Pathology. Attainment of this degree and ASCP certification enable graduates to seek employment in healthcare laboratories.