

**IVY TECH COMMUNITY COLLEGE
WABASH VALLEY**

**MEDICAL LABORATORY TECHNOLOGY
ASSOCIATE DEGREE PROGRAM**



**OVERVIEW AND APPLICATION
HANDBOOK**

Ivy Tech Community College – Wabash Valley Region
Medical Laboratory Technology

MEDICAL LABORATORY TECHNOLOGY ASSOCIATE DEGREE PROGRAM

OVERVIEW AND APPLICATION HANDBOOK

NON-DISCRIMINATION AND EQUAL OPPORTUNITY POLICY

Ivy Tech Community College provides open admission, degree credit programs, courses and community service offerings, and student support services for all persons regardless of race, color, creed, national origin, religion, sex, physical or mental disability, age or veteran status. The College also provides opportunities to students on the same non-discriminatory opportunity basis. Persons who believe they may have been discriminated against should contact the campus affirmative action officer, Director of Human Resources, or Dean of Student Affairs.

BOOKLET DISCLAIMER

This booklet is intended to supply accurate information to the reader. The College reserves the right to change the Program and course requirements; however, every effort will be made to inform students of any program changes. This handout and its provisions are not in any way a contract between an applicant and the College.

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ACCREDITING ORGANIZATIONS

Ivy Tech Community College is accredited by the North Central Association of Colleges and Schools.

North Central Association of Colleges and Schools
30 North LaSalle Street, Suite 2400
Chicago, IL 60602-2504
Phone: 312-263-0456

The Medical Laboratory Technology Program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). Graduates of the program are eligible to sit for the national ASCP certification exam. Information regarding accreditation of medical lab tech programs is available at www.naacls.org and information regarding eligibility for national certification is available at www.ascp.org.

National Accrediting Agency for Clinical Laboratory Sciences
5600 N. River Rd. Suite 720
Rosemont, IL 60018-5119
Phone: 847-939-3597

PURPOSE

The Medical Laboratory Technology Program at Ivy Tech Community College of Indiana is designed to prepare graduates to work in clinical laboratories in hospitals, clinics, physicians' offices, reference labs as well as in industry or research laboratories as Medical Laboratory Technicians. Medical Laboratory Technicians perform laboratory procedures, define and solve associated problems and use quality control techniques to aid in the diagnosis, treatment and monitoring of patients.

This two year Associate of Applied Science program requires completion of a minimum of 70 credit hours. The conferring of the AAS Degree is **NOT** contingent upon passing any type of external certification or licensure examination.

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PHILOSOPHY

The purpose of the Medical Laboratory Technology Program is to provide post-secondary education to serve the needs of the individual, the community, the state, and the nation. The program provides didactic and clinical experience that enables the student to develop definable job skills required to secure employment in the medical laboratory.

Learning occurs when it is relevant to student needs and goals; when there is a close correlation between theory and practice; when there is teacher-student interaction; and when learning is the active responsibility of the student.

The education of the student is the responsibility of the College where education is the primary function. College auxiliary services are available to the student during the program. The practical laboratory experience, an essential part of this education, is conducted within clinical laboratories.

College faculty plan, implement, and evaluate curriculum; clinical instructors guide and evaluate the clinical experience. The faculty and instructors teach through realistic correlation of principles and clinical experience.

The program strives to develop an individual who is competent in the present-day clinical laboratory environment, and who is adaptable to the changing technology in this occupational area.

PROGRAM GOALS

From this philosophical base, the following goals are established for the Medical Laboratory Technician Associate Degree Program:

1. The program will provide relevant didactic and clinical experience for the graduate to achieve entry level job competencies:
 - a. Perform and understand the principles of the most frequently requested laboratory procedures.
 - b. Maintain appropriate quality control.
 - c. Recognize any routine problem or deviation that may arise.
2. The College will complete all steps necessary to achieve initial accreditation in order to provide the opportunity for certification of competency in the medical laboratory.
3. The Program will be consistent with the current technology of medical laboratories in the community:
 - a. Identify current laboratory procedures used in the community.
 - b. Incorporate appropriate principles, procedures, and skills within the program.
4. The Program will promote personal, social, professional responsibility:
 - a. Identify professional attitudes and conduct.
 - b. Encourage participation in professional organizations.
 - c. Identify continuing education opportunities.
 - d. Develop effective communication skills.

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CAREER ENTRY COMPETENCIES

At entry level, the medical laboratory technician will possess the entry level competencies necessary to perform routine clinical laboratory tests in areas such as Clinical Chemistry, Hematology/Hemostasis, Immunology, Immunohematology/Transfusion medicine, Microbiology, Urine and Body Fluid Analysis, and Laboratory Operations.

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

At career-entry competencies as recommended by the National Accrediting Agency for Clinical Laboratory Science, the medical laboratory technician will have the following basic knowledge and skills in:

1. Application of safety and governmental regulations compliance
2. Principles and practices of professional conduct and the significance of continuing professional development
3. Communications sufficient to serve the needs of patients, the public and members of the health care team.

SCOPE OF PRACTICE

Specific responsibilities of the six general Professional Levels competencies as described in the “Scope of Practice” (Harmening, Castleberry, & Lutz, 1995) are as follows:

1. TECHNICAL SKILLS

- a. performs standard laboratory techniques under supervision
- b. ensures proper function of laboratory equipment
- c. operates and calibrates all laboratory instruments to ensure accuracy
- d. maintains records/documentation
- e. performs quality control procedures
- f. processes data, enters data into the computer
- g. collects specimens
- h. prepares specimens for analysis
- i. determines acceptability of sample within guidelines
- j. performs preventive and corrective maintenance and repairs on basic laboratory equipment
- k. operates laboratory equipment
- l. troubleshoots basic instrument malfunction
- m. troubleshoots instrument problems within established parameters
- n. performs new procedures as directed
- o. performs some non-automated and specialized lab procedures

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2. JUDGMENT/ANALYTICAL DECISION MAKING

- a. performs quality assurance
- b. performs quality control procedures within established parameters
- c. performs analytical and decision making functions with direct supervision
- d. prioritizes assignment of test requests (stats)
- e. recognizes and refers implausible results
- f. refers requests for special and unusual tests
- g. recognizes and refers questions and/or problems to appropriate personnel
- h. coordinates general workflow

3. KNOWLEDGE BASE

- a. complies with safety guidelines
- b. recognizes abnormal results
- c. reports abnormal results
- d. understands the basic physiology of laboratory results
- e. recognizes appropriate and inappropriate selection of basic laboratory testing
- f. observes principles of data security and patient confidentiality
- g. maintains ethical standards
- h. recognizes unexpected results, errors, and problems with patient tests

4. COMMUNICATION

- a. reports test results
- b. communicates with personnel in work group
- c. acts as advocate to effect legislation and influence outside agencies
- d. provides education for public as needed

5. TEACHING/TRAINING

- a. enforces safety regulations
- b. responds to technical questions consistent with level of training
- c. participates in personal continuing education
- d. responsible for own professional development

6. SUPERVISION/MANAGEMENT ADMINISTRATION

- a. maintains inventory and supplies
- b. suggests cost effective laboratory procedures or protocol

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ESSENTIAL FUNCTIONS OF MEDICAL LABORATORY TECHNOLOGY

Qualified applicants are expected to meet all admission criteria as well as essential functions with or without reasonable accommodations. Students requesting accommodations to meet these criteria must inform the Program Chair in writing of the need for accommodations at the time of admission to the program. The student is expected to contact The Office of Disability Support Services (DSS) to file the appropriate forms documenting the need for accommodations.

Essential Functions List

Frequency: O = Occasionally (1-33%) F = Frequently (34-66%) C = Constantly (67-100%)

Function	Program-Specific Examples	Frequency
GROSS MOTOR SKILLS	<ul style="list-style-type: none"> Reach laboratory bench tops, shelving, patients lying in hospital beds or patients seated in out-patient collection chairs Bend, lift, and carry reagent containers Control laboratory equipment and adjust instruments to perform laboratory procedures Use an electronic keyboard to operate equipment and to calculate, record, evaluate, and transmit laboratory information 	C
FINE MOTOR SKILLS	<ul style="list-style-type: none"> Perform testing procedures that require the use of both hands (pipetting, mixing, pouring, wiping tip, etc.) Possess manual dexterity to safely handle and/or transport biologically hazardous specimens Possess manual dexterity to safely perform venipuncture, microcollections, and culture specimens Perform testing procedures which require delicate psychomotor skill control 	C
PHYSICAL ENDURANCE	<ul style="list-style-type: none"> Perform moderately taxing continuous physical work Stand for prolonged time period over several hours Sit for prolonged time period 	C

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Function	Program-Specific Examples	Frequency
	over several hours <ul style="list-style-type: none"> • Travel to clinical laboratory sites for clinical experience – may require 30-60 minute drive 	
PHYSICAL STRENGTH	<ul style="list-style-type: none"> • Lift up to 50 lbs reagent containers, stock 	O
MOBILITY	<ul style="list-style-type: none"> • Move freely and safely about the laboratory • Refer back to Gross Motor Skills 	C
HEARING	<ul style="list-style-type: none"> • Hear and respond to verbal communication from co-workers, other health care staff, and patients • Hear and respond to equipment and instrument alarm systems • Hear and respond to equipment and instrument timers • Utilize the telephone for communication between lab and other health care personnel and the community 	C
VISUAL	<ul style="list-style-type: none"> • Confirm patient identity, specimen, etc.; read lab requisitions, labels, results, etc. • Read/comprehend text, numbers, graphs, instrument settings, etc. in print and on computer screen • Read laboratory procedures, instrument manuals, manufacturer inserts, chemical names and instructions • Follow written instructions to be able to independently perform laboratory test procedures • Observe and visually interpret laboratory tests on biological specimens (body fluids, culture material, tissue, blood and serum) 	C

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Function	Program-Specific Examples	Frequency
VISUAL (continued)	<ul style="list-style-type: none"> • Differentiate color, clarity, and viscosity of specimens, reagents, or reaction products • Differentiate colors of stained specimens, and color coded evacuation tubes • Employ use of clinical grade binocular microscope to discriminate fine structural details, and color (hue, shading, and intensity) of microscopic specimens • Possess eye-hand coordination 	C
TACTILE	<ul style="list-style-type: none"> • Utilize fingertips for tactile discrimination of vein size, depth, and direction, arterial pulse location, etc. 	O, F, C Depending upon employment
SMELL	<ul style="list-style-type: none"> • Discriminate odors specific for certain organisms, metabolic disorders • Differentiate odor of specimens • Discriminate/Differentiate odors of chemicals/reagent safety issues and reaction products 	C
EMOTIONAL STABILITY AND INTERPERSONAL SKILLS	<p><u>EMOTIONAL STABILITY:</u></p> <ul style="list-style-type: none"> • Possess emotional health necessary to effectively employ intellect and exercise appropriate judgment. <p><u>FLEXIBILITY: FUNCTION UNDER STRESS:</u></p> <ul style="list-style-type: none"> • Interact with patients and health care workers in a professional manner in all circumstances i.e., stress, crises, etc. without exhibiting anger, rage, or other inappropriate emotional displays • Manage time and systemize actions in order to complete professional and technical tasks with realistic constraints • Provide professional and technical services while 	C

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Function	Program-Specific Examples	Frequency
<p>EMOTIONAL STABILITY AND INTERPERSONAL SKILLS (continued)</p>	<p>experiencing the stresses of task related problems (i.e., ambiguous test ordering, ambivalent test interpretation), emergency demands, and a distracting environment</p> <ul style="list-style-type: none"> • Flexible, creative, and able to adapt to professional and technical change • Adapt to working with unpleasant biological specimens • Able to draw blood specimens in ER and other locations on critically ill patients <p><u>SOFT SKILLS:</u></p> <ul style="list-style-type: none"> • Interact with trauma, chronically ill, acutely ill, and terminally ill patients of all ages, race, etc. • Provide service to all patients, regardless of age, race, gender, sexual orientation, religion, physical, or mental handicap, physical condition or disease process • Be honest, compassionate, ethical, and responsible • Be forthright about errors or uncertainty • Able to critically evaluate his/her own performance and accept constructive criticism, and look for ways to improve • Support and promote the activities of fellow students and health care professional thus encouraging team approach to learning, task completion, problem solving, and patient care 	C
	<p><u>VERBAL:</u></p> <ul style="list-style-type: none"> • Speak clearly, concisely and employ correct vocabulary and grammar for communication with physicians, other health care 	

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Function	Program-Specific Examples	Frequency
COMMUNICATION SKILLS	professionals, students, faculty, patients, family and public in person and via telephone <ul style="list-style-type: none"> • Give clear verbal instructions to patients prior to specimen collection • Converse effectively, confidentially, and sensitively with patients in regards to laboratory test 	C
COMMUNICATION SKILLS (continued)	<u>NON-VERBAL:</u> <ul style="list-style-type: none"> • Recognize, identify and respond correctly to non-verbal communication <u>WRITING AND RECORDING:</u> <ul style="list-style-type: none"> • Transcribe laboratory results accurately and legibly in print and on computer report screen • Transcribe phone messages accurately and legibly • Write laboratory procedures using correct grammar, spelling punctuation, sentence structure and appropriate medical terminology 	C

Note: Students with disabilities requiring accommodations must meet with the College Disabilities Support staff.

To be completed by the Healthcare Provider (physician, licensed physician assistant or nurse practitioner)

I have reviewed the student's immunity status documentation and verified this information to be accurate, including initiation of immunization series.

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Yes <input type="checkbox"/> No <input type="checkbox"/>
I have reviewed results of TB screening and verify that the student is free of active tuberculosis. Yes <input type="checkbox"/> No <input type="checkbox"/>
I have reviewed the essential functions with the student, and based on my assessment I have not identified any physical or mental limitations which would prevent the student from performing the essential functions described above. Yes <input type="checkbox"/> No <input type="checkbox"/>
Provider Name/Credentials _____ Signature _____ Date _____ Provider Phone: ____ - ____ - _____

<u>To be completed by the student</u>
I do not have any physical or mental limitations which would prevent me from performing the essential functions described above. Signature _____ Date _____

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In order to participate at the clinical sites, CRIMINAL BACKGROUND CHECKS and DRUG/ALCOHOL TESTING*** must be performed and the results must be satisfactory to the clinical sites to complete this portion of the coursework. Although personal information will be kept confidential, names and results of background checks, whether positive or negative, may be shared with any affiliating clinical site for the Medical Laboratory Technology program in order to determine clinical eligibility. Some clinical sites may require you to show your criminal background check results to them.

As per College policy, if clinical site placement of the student is not successful, ***“...the student will be notified that s/he may not enroll in clinical courses and any co-requisite courses. In most cases, this will mean that the student will not be able to progress in the program, and will therefore not be able to complete the courses required for graduation.”*** Any existing clinical affiliate appeal processes will be shared with the student. The student is then responsible for managing their appeal directly with the clinical affiliate.

ETHICS ELIGIBILITY

Completion of a criminal background check and drug/alcohol screening for a Health Sciences program does not ensure eligibility for licensure, credentialing, or future employment.

If you should have a criminal matter in your past after you have reached age 18, whether it is recent or not, you must contact the following credentialing body for eligibility that pertains to you:

The American Society for Clinical Pathology (ASCP) Board of Certification 1-800-267-2727

RANDOM DRUG TESTING

Clinical affiliates can conduct additional background checks and drug/alcohol screenings (including random drug/alcohol screenings during clinical) at their discretion. These tests may be at the expense of the student.

****Additional criminal background checks and/or drug/alcohol screenings will be required in programs for students enrolled in clinical courses more than 12 months.*

*Students who are not continuously enrolled in a program until completion may be required to complete additional checks upon re-entry to a program or admission to a different program in the School of Health Sciences or School of Nursing. Clinical sites or the College may request additional background checks or drug screenings at their discretion.****

CERTIFICATION/LICENSURE TRAINING DISCLAIMER

Ivy Tech Community College – Wabash Valley Region cannot guarantee that any student will pass a certification or licensing exam. Your success will be determined by several factors beyond the instruction you are given in the classroom including your test-taking skills, your willingness to study outside of class, and your satisfactory completion of appropriate practice exams. Certification and licensure exam questions are drawn from databases of hundreds of possible questions; therefore, a thorough understanding of the subject matter is required. The goal of Ivy Tech in providing a certification exam studies class is to assist you in understanding the material sufficiently to provide a firm foundation for your studies as you prepare for the exam.

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PROGRAM ADMISSION

The college is an equal opportunity affirmative action state college and conducts its business in a manner that will not discriminate against individual on the basis of sex, race, color, creed, national origin, physical handicap or age. The College reserves the right to guide the enrollment of students in a particular program or course based on their prior academic records and vocational counseling.

Admission to the MLT Program is a two-step process. The student must first apply to the college. Once those requirements have been fulfilled and the student meets the pre-requisite requirements, the student's file is then reviewed for eligibility for enrollment in the MLT Program.

The application process is as follows:

**IVY TECH COMMUNITY COLLEGE
HEALTH SCIENCE PROGRAMS ADMISSION-SELECTION PROCESSES**

PROGRAM: Medical Laboratory Technology

STEP ONE: Admission to the College

- Contact the Admissions Department for College admission requirements.

STEP TWO: Admission to the Program

- **Advising:** Attend a required program information session and/or meet with a program advisor.
- **Prerequisites:** Complete pre-requisite requirements
 - Any academic skills advancement courses identified by College entrance exams.
 - Program course pre-requisites: APHY 101, ENGL 111, Math 123 or higher, IVYT 112
- **Program Application:**
 - Submit a program application prior to the established deadline date: **May 1st, or the next business day if May 1st falls on a week-end or holiday.**
 - Contact your advisor for campus-specific information on how to obtain an application packet.
- **Selection Policy:** When there are more qualified applicants than seats available, a point system will be utilized to determine who is admitted to the program.
 - Applicants having the highest points will be offered admission to the program according to the number of clinical spots available. Courses will be evaluated based on the higher of two (2) attempts for each course.

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A = 8 pts B = 6 pts C = 4 pts D = 0 pt

#APHY 101: Anatomy & Physiology I

#MATH 123 or Higher

*Points for credit received by CLEP or DANTES test out = 6 points

A = 4 pts B = 3 pts C = 2 pts D = 1 pt

IVYT 112:

##ENGL 111: English Composition

*Points for credit received by CLEP or DANTES test out = 3 points

- **Tie Breaker – Points for CHEM/BIO201 or APHY 102 will be used as tie breakers.**

The application packet must include the following:

1. Program Admission Application form with all information filled in completely.
2. A copy of any college transcripts from which transfer credit to Ivy Tech Community College has been requested or issued. An unofficial transcript will serve the purpose for the admission packet for the MLT Program; however, an official transcript must be on file with the Registrar's office for transfer credit to be issued. Grades taken from unofficial transcripts may be verified using the official transcript; any student who alters an unofficial transcript for the purpose of gaining additional admission/selection points will automatically be disqualified from admission to the Program.

Acceptance notification will be sent via email and will be sent to the Ivy Tech.edu address you provide on the application. Applicants can expect an email to be sent to them regarding acceptance or denial into the Medical Laboratory Technology Program during the month of June. Please do not call the office to inquire about the status of your selection.

Students who have been accepted into the program must attend a mandatory New Student Orientation. The date for that orientation will be included in the acceptance email letter.

REGISTRATION FOR FALL CLASSES

Registration for fall classes will begin before the deadline for MLT admission. Classes fill up quickly, so it is recommended that you go ahead and register for fall courses. You will not be able to register for MLT courses, however, if you are accepted into the program, you will be guaranteed a spot in the MLT courses. It is recommended that you go ahead and register for any general education courses you may still need (especially if you need Chemistry). You may also consider signing up for classes in your second choice of major. If you are accepted into the program, you may drop the courses from your second choice when you register for MLT courses at the required orientation. If you are not accepted, you will be ready to begin your second choice major. PLEASE MEET WITH YOUR ADVISOR FOR ASSISTANCE WITH FALL REGISTRATION.

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KEY CONTACTS

MLT Program Director:

Heather Morson MA, MLS (ASCP)^{CM}

Phone: (812) 298-2251

Email: hchristenberry@ivytech.edu

School of Health Sciences Lab Assistant/Instructor

Lindsey Wallace, MLT (ASCP)^{cm}

Phone: (812)298-2378

Email: lrose12@ivytech.edu

School of Health Sciences Administrative Assistant

Lurissa Everson

Phone: (812) 298-2239

Email: leverson@ivytech.edu

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MEDL PROGRAM ADMISSION APPLICATION

Last Name: _____ First Name: _____

Student ID (C0#): _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Contact Phone: (____) - _____ Alternate Phone: (____) - _____

Ivy Tech Email: _____

GENERAL EDUCATION COURSES

To Be Completed By Student:				For Office Use Only:
COURSE	WHEN TAKEN	WHERE TAKEN	FINAL GRADE	POINTS
APHY 101 *				
MATH 123*				
IVYT112*				
ENGL111*				
CHEM 101 or CHEM 111				
APHY 102 or BIOL 201 or BIOL 211				
TOTAL POINTS:				

*Denotes Program Prerequisites

For Office Use Only

Date Application Received: _____

Applicant Response

Accepted: _____

Declined: _____

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PROGRAM APPLICATION INSTRUCTIONS

- _____ 1. If you are not currently an Ivy Tech student, complete an application for admission to Ivy Tech Community College. For more information, contact the Terre Haute Admissions Office at (812) 298-2280.
- _____ 2. If you have previously attended another college, have OFFICIAL copies of your transcripts sent to the Admissions Office.
- _____ 3. Attend an information session or a meeting with an MEDL advisor (Contact the Advising Center to make an appointment with an advisor).
- _____ 4. Submit this application packet to the Health Sciences Dropbox by **May 1st** of the application year: make sure all of the following are included in your application packet:
 - _____ a. Completed Program Admission Application (page 17)
 - _____ b. Copies of all college transcripts, this includes Ivy Tech and any other colleges you have attended. *Note: transcripts submitted to the MLT program may be unofficial; however, copies submitted to the Admissions Office for transfer credit must be official.*
 - _____ c. Submit the above to School of Health Sciences Office

You may mail your application to¹:

Ivy Tech Community College
MEDL Application
8000 South Education Drive
Terre Haute, IN 47802

Or you may drop it off at our Dropbox located in the B Hallway, or at the Copy Center (please have it dated and time stamped at the window first) at the main Terre Haute Campus.

If the application deadline falls on a weekend or holiday, the application will be due the next business day.

It is your responsibility to ensure that the entire packet is submitted in its entirety by the deadline of May 1. Applications may be accepted after the deadline, but those students will only be considered for admission if there are available spots in the program.

Do not contact the MLT office to inquire on the status of your application after the deadline. You will be notified by email of your status. All students will get an email regarding acceptance status.

If you have any questions please contact Heather Morson at hchristenberry@ivytech.edu.