

**IVY TECH COMMUNITY COLLEGE
SOUTHERN INDIANA**

**MEDICAL LABORATORY TECHNOLOGY
ASSOCIATE DEGREE PROGRAM**



**OVERVIEW AND APPLICATION
PROCESS BOOKLET**

**IVY TECH COMMUNITY COLLEGE SOUTHERN INDIANA
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OVERVIEW AND APPLICATION PROCESS

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.

ACCREDITING ORGANIZATIONS

The 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 69 credit hours. The conferring of the AAS Degree is **NOT** contingent upon passing any type of external certification or licensure examination.

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.

CAREER ENTRY COMPETENCIES

Graduates of the Medical Laboratory Technology Program are expected to demonstrate the following career-entry competencies as recommended by the National Accrediting Agency for Clinical Laboratory Science:

1. Collect, process, and analyze biological specimens and other substances.
2. Perform all analytical tests of body fluids, cells, and other substances.
3. Recognize factors that directly or indirectly affect procedures and results, and take appropriate action within predetermined limits when corrections are indicated.
4. Apply basic scientific principles in learning new techniques or procedures.
5. Perform and monitor quality control/quality assurance within predetermined limits.
6. Perform corrective and preventive maintenance of equipment and instruments or refer to appropriate sources for repair.
7. Apply principles of safety.
8. Demonstrate professional conduct and interpersonal communication skills with patients, laboratory personnel, other health care professionals, and with the public.
9. Recognize the responsibilities of other laboratory and health care personnel, and interact with them with respect for their jobs and patient care.
10. Relate laboratory findings to common disease processes.
11. Establish and maintain continuing education as a function of growth and maintenance of professional competence.

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
- 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

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 ADA counselor in Student Affairs to file the appropriate forms documenting the need for accommodations.

Essential Function	Description	Examples
Observation	Use of senses: Visual	<p>Confirm patient identity, specimen, etc.; read lab requisitions, Labels, results, etc.</p> <p>Read/comprehend text, numbers, graphs, instrument settings, etc. in print and on computer screen</p> <p>Read laboratory procedures, instrument manuals, manufacturer inserts, chemical names and instructions.</p> <p>Follow written instructions to be able to independently perform laboratory test procedures</p> <p>Observe and visually interpret laboratory tests on biological specimens (body fluids, culture material, tissue, blood and serum).</p> <p>Differentiate color, clarity, odor, and viscosity of specimens, reagents, or reaction products</p> <p>Differentiate colors of stained specimens, and color coded evacuation tubes</p>

		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.
	Auditory	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.
	Touch	Utilize fingertips for tactile discrimination of vein size, depth, and direction, arterial pulse location, etc.
	Smell	Discriminate odors specific for certain organisms, metabolic Disorders Discriminate odors of chemicals/reagent safety issues.
Communication	Verbal	Speak clearly, concisely and employ correct vocabulary and grammar for communication with physicians, other health care professionals, students, faculty, patients, family and public in person and via telephone. Give clear verbal instructions to patients prior to specimen collection. Converse effectively, confidentially, and sensitively with patients in regards to laboratory test.
	Non-verbal	Recognize, identify and respond correctly to non-verbal communication.

	Writing/recording	<p>Transcribe laboratory results accurately and legibly in print and on computer report screen</p> <p>Transcribe phone messages accurately and legibly.</p> <p>Write laboratory procedures using correct grammar, spelling punctuation, sentence structure and appropriate medical terminology</p>
	Reading	<p>Read and correlate laboratory results.</p> <p>Read and comprehend technical and professional materials (i.e., procedure manuals, manufacturer inserts, reference materials, textbooks, journals, etc.).</p>
Motor	Physical ability	<p>Perform moderately taxing continuous physical work.</p> <p>Possess manual dexterity to safely handle and/or transport biologically hazardous specimens</p> <p>Possess manual dexterity to safely perform venipuncture, microcollections, and culture specimens.</p>
	Gross Motor Skills Strength Flexibility Extension	<p>Stand for prolonged time period over several hours</p> <p>Sit for prolonged time period over several hours</p> <p>Travel to clinical laboratory sites for clinical experience – may require 30-60 minute drive.</p> <p>Move freely and safely about the laboratory</p>

		<p>Reach laboratory bench tops, shelving, patients lying in hospital beds or patients seated in out-patient collection chairs.</p> <p>Bend, lift, and carry reagent containers</p> <p>Control laboratory equipment and adjust instruments to perform laboratory procedures.</p>
	Fine Motor Skills	<p>Use an electronic keyboard to operate equipment and to calculate record, evaluate, and transmit laboratory information.</p> <p>Perform testing procedures which require the use of both hands (pipetting, mixing, pouring, wiping tip, etc.).</p> <p>Perform testing procedures which require delicate psychomotor skill control</p>
Intellectual/ Conceptual	<p>Ability to problem Solve</p> <p>Critical Thinking</p> <p>Measuring</p> <p>Calculating</p> <p>Reasoning</p> <p>Analyzing</p> <p>Prioritizing</p> <p>Synthesizing</p> <p>Correlating</p>	<p>Interpret normal and abnormal laboratory test results.</p> <p>Use Levey-Jennings Charts, graphs and numerical tables.</p> <p>Use testing algorithms</p> <p>Calculate laboratory test results when required.</p> <p>Recognize when a testing or instrument problem exists and take appropriate action.</p> <p>Recognize when problems or complications occur and take appropriate action during patient procedures.</p> <p>Prioritize workload.</p> <p>Delegate workload</p>

Behavioral/ Social	Emotional Stability	Possess emotional health necessary to effectively employ intellect and exercise appropriate judgment.
	Flexibility	Manage time and systemize actions in order complete professional and technical tasks with realistic constraints.
	Function effectively under stress	Provide professional and technical services while experiencing the stresses of task related problems (i.e., ambiguous test ordering, ambivalent test interpretation), emergent demands, and a distracting environment.
	Demonstrate Soft Skills	<p>Flexible, creative, and able to adapt to professional and technical change.</p> <p>Adapt to working with unpleasant biological specimens.</p> <p>Able to draw blood specimens in ER and other locations on critically ill patients.</p> <p>Interact with trauma victims, chronically ill, acutely ill, and terminally ill patients of all ages, race, etc.</p> <p>Provide service to all patients, regardless of age, race, gender, sexual orientation, religion, physical, or mental handicap, physical condition or disease process.</p> <p>Be honest, compassionate, ethical, and responsible.</p> <p>Be forthright about errors or uncertainty.</p> <p>Able to critically evaluate his/her own performance and accept constructive criticism, and look for ways to improve.</p> <p>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</p>

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 on the basis of 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 your COMPASS test.
 - Program course pre-requisites: none
- **Program Application:**
 - Submit a program application prior to the established deadline date: **May 1, 2012**
- **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.

- **Course Points – maximum 36 points**

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

APHY 101

* BIOL 201 or /211 or APHY 102

*CHEM 101 or 111

*MATH 1XX

*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 1XX

HLHS 105

*ENGL 111

*PSYC 101 or SOCI 111

*COMM 101 or COMM 102

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

- **Tie Breaker – Cumulative GPA to 2 decimal places**

The application packet must include the following:

1. 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.
3. A typed list of all current courses.

Acceptance letters will be mailed within 30 days of the application deadline. 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 orientation. The date for that orientation will be included in the acceptance letter packet.

Upon acceptance into the program, a physical examination and immunization record will be required. Final acceptance into the Program will be conditional pending receipt of these documents by the deadline date given in the admission

packet. The student's health care provider must indicate the student's capability to undertake the essential functions of the program and immunizations must be up to date for acceptance in the program to be finalized. The forms necessary for this documentation will be given at the mandatory orientation.

Please note that drug screens and background checks are required prior to the clinical semester. Please see the MLT student handbook for details.

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. If you are not accepted, you will be ready to begin your second choice major. **PLEASE MEET WITH AN ADVISOR FOR ASSISTANCE WITH FALL REGISTRATION.**

**Ivy Tech Community College Southern Indiana
Key Contacts**

MLT Program Director:

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