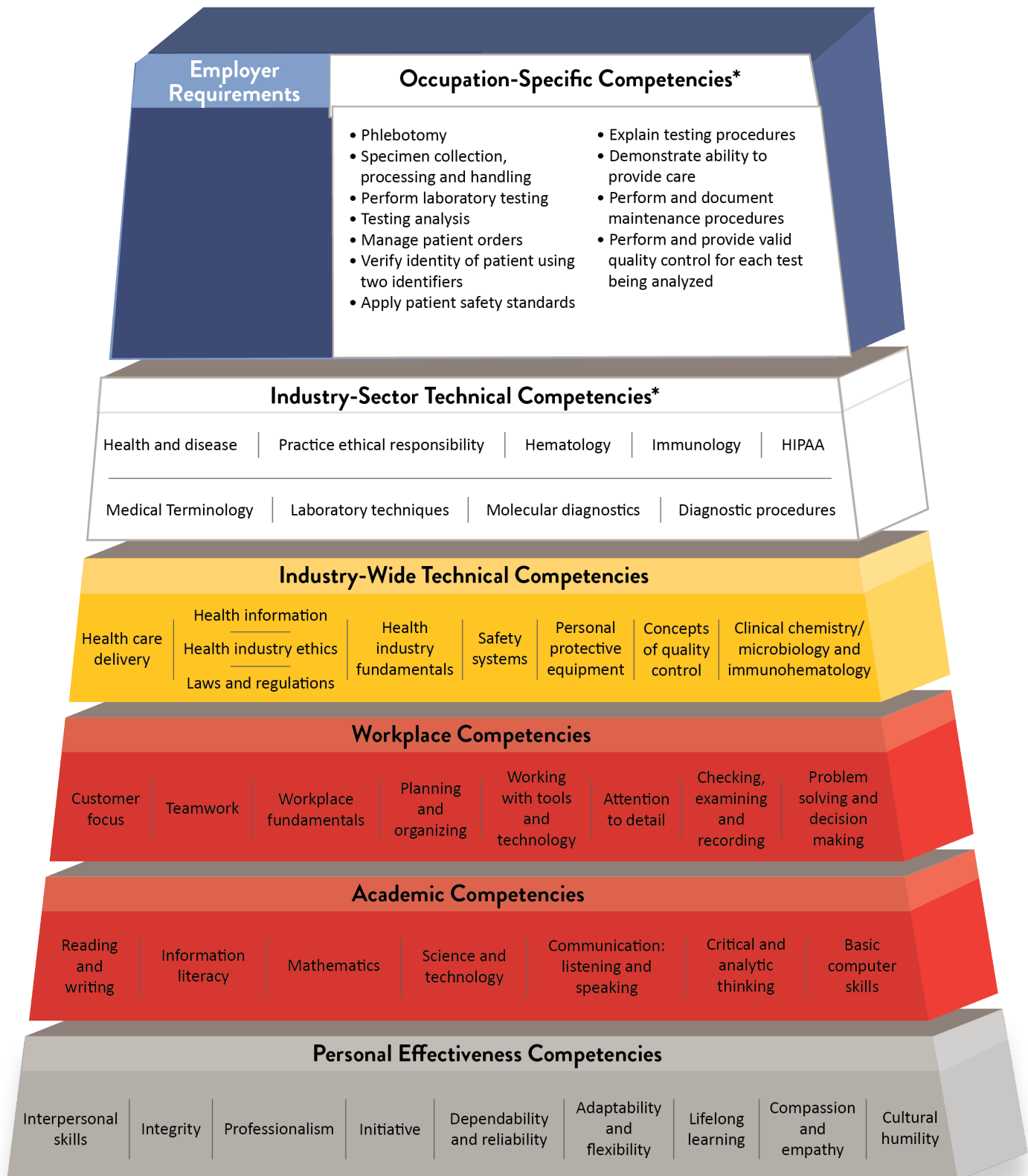


# Minnesota Dual-Training Pipeline

## Competency Model for Health Care Services

### Occupation: Medical Laboratory Technician



Based on: Health: Allied Health Competency Model Employment and Training Administration, United States Department of Labor, December 2011.

\* Pipeline recommends the Industry-Sector Technical Competencies as formal training opportunities (provided through related instruction) and the Occupation-Specific Competencies as on-the-job training opportunities.



## Competency Model for Medical Laboratory Technician

**Medical Laboratory Technician** – A healthcare professional who performs chemical, hematological, immunologic, histopathological, cytopathological, microscopic and bacteriological diagnostic analyses on body fluids such as blood, urine, sputum, stool, cerebrospinal fluid, peritoneal fluid, pericardial fluid and synovial fluid, as well as other specimens. They work in laboratories at hospitals, clinics, reference labs, and biotechnology labs.

### Industry-Sector Technical Competencies

**Related Instruction** for dual training means the organized and systematic form of education resulting in the enhancement of skills and competencies related to the dual trainee's current or intended occupation.

- **Health and disease** – Understand the overall condition of an organism at a given time; disease is a disorder or malfunction of the mind or body, which destroys good health.
- **Practice ethical responsibility** – Know that medical ethics allow for people, regardless of race, gender, or religion to be guaranteed quality and principled care.
- **Hematology** – Understand the science or study of blood, blood-forming organs and blood diseases.
- **Immunology** – Know about the study of the human body's built-in defense system, which protects from infection.
- **HIPAA** – Understanding of the Health Insurance Portability and Accountability Act which is the law that provides data privacy and security provisions for safeguarding medical information.
- **Medical terminology** – Understand language used to precisely describe the human body including its components, processes, conditions affecting it, and procedures performed upon it.
- **Laboratory techniques** – Be able to perform acts on patient specimens to detect biomarkers and diagnose diseases.
- **Molecular diagnostics** – Understand a collection of techniques used to analyze biological markers in the genome and proteome, the individual's genetic code and how their cells express their genes as proteins, by applying molecular biology to medical testing.

- **Diagnostic procedures** – Be able to do an examination to identify an individual's specific areas of weakness and strength to determine a condition, disease or illness.

## Occupation-Specific Competencies

**On-the-Job Training (OJT)** is hands-on instruction completed at work to learn the core competencies necessary to succeed in an occupation. Common types of OJT include job shadowing, mentorship, cohort-based training, assignment-based project evaluation and discussion-based training.

- **Phlebotomy** – Know how to conduct a procedure in which a needle is used to take blood from a vein, usually for laboratory testing.
- **Specimen collection, processing, and handling** – Understand the integral part of obtaining a valid and timely laboratory result. Specimens must be obtained in the proper containers, correctly labeled, and then promptly transported to the laboratory.
- **Perform laboratory testing** – Understand established protocols, perform waived, moderate or highly complex testing and report results.
- **Testing analysis** – Know that any combination of the following areas may be included for testing analysis: Hematology, coagulation, microbiology, serology, immunology, immunohematology, chemistry, urinalysis, phlebotomy, and EKG.
- **Manage patient orders** – Be able to oversee patient orders which includes any documentation required for the diagnosis, treatment, and follow-up with patient, and is typically more specific to an individual's physical and mental well-being.
- **Verify identity of patient using two identifiers** – Be able to prevent instances of misidentification and near-miss error. Requirement of two identifiers – such as the patient's full name, date of birth and/or medical identification number at every patient encounter.
- **Apply patient safety standards** – Understand the system of care delivery that prevents errors, learns from the errors that do occur and is built on a culture of safety that involves health care professionals, organizations, and patients.
- **Explain testing procedures** – Understand how to share information with patients about testing procedures in a manner geared to gain their confidence and cooperation and relieve anxiety about the test.
- **Demonstrates ability to provide care** – Know how to provide patient care by adjusting approaches to reflect developmental level and cultural differences.

- **Perform and document maintenance procedures** – Know how to do maintenance and also be able to obtain adequate supplies and perform documentation.
- **Perform and provide valid quality control for each test being analyzed** – Understanding accuracy of results and knowing specimen quality/acceptability.

Updated February 2025