

**MICHIGAN CIVIL SERVICE COMMISSION  
JOB SPECIFICATION**

**LABORATORY TECHNICIAN**

**JOB DESCRIPTION**

Employees in this job participate in a variety of medical or analytical laboratory support activities for a specific testing or research program. Work is performed through the application of a body of knowledge related to standard laboratory methods, practices, procedures, policies, regulations, and laboratory materials and equipment.

There are five classifications in this job.

**Position Code Title – Laboratory Technician-E**

Laboratory Technician 8

This is the beginning level. The employee works in a learning capacity while performing a range of laboratory technician assignments under close supervision.

Laboratory Technician 9

This is the intermediate level. The employee works in a developing capacity with increased responsibility for performing a range of laboratory technician assignments.

Laboratory Technician E10

This is the experienced level. The employee performs a full range of laboratory technician assignments and uses considerable judgement in making decisions requiring the interpretation and application of guidelines with considerable latitude to specific work situations.

**Position Code Title – Laboratory Technician-A**

Laboratory Technician 11

This is the advanced level. The employee at this level functions as either a lead worker responsible for overseeing the work activities of other Laboratory Technicians or as a senior worker performing the most complex laboratory technician assignments beyond those expected at the experienced level that have been approved by Civil Service.

**Position Code Title – Laboratory Technician-SS**

Laboratory Technician 12

This is the staff specialist level. The employee utilizes specialized technical knowledges in performing highly complex laboratory technician assignments involving authority for an assigned program. Staff specialist positions have sole and full-time responsibility for an assigned program area, and are recognized through approval by Civil Service.

**NOTE:** Employees generally progress through this series to the experienced level based on satisfactory performance and possession of the required experience.

## LABORATORY TECHNICIAN

### **PAGE No. 2**

#### **JOB DUTIES**

**NOTE:** The job duties listed are typical examples of the work performed by positions in this job classification. Not all duties assigned to every position are included, nor is it expected that all positions will be assigned every duty.

Performs biological, hemotological, chemical, or physical analysis and determinations at the direction of professional staff.

Performs physical, bacteriological, chemical, or serological tests on a variety of samples including blood, sputum, urine, milk, water, food products, contaminants, industrial and municipal wastes, soils, and construction materials at the direction of professional staff.

Operates, adjusts, and maintains scientific instruments, including, but not limited to pH meters, spectrophotometers, electrophoresis apparatuses, chromatography apparatuses, flame photometers, fluorescent immunoassay refractometers, particle counters, microprocessors, analytical balances, autoclaves, and compression testing equipment.

Prepares chemical reagents and biological media according to formulae; assumes responsibility for accuracy in the preparation and standardization of solutions.

Follows required aseptic techniques in dispensing base media.

Logs samples and related pertinent information, and has responsibility for containers and specimens that may be involved in court action.

Prepares slides and makes microscopic observations.

Collects blood specimens and analyzes them for sugar, sedimentation rate, type, bacteria cultures, and bacteria identification.

Performs such blood counts as red cell, hemoglobin, differential, platelet, retic, and sickle cell.

Makes complete urinalyses, including qualitative and quantitative sugar, specific gravity and albumin.

Performs gastric lavage and gastric analysis.

Performs digestion/extraction of environmental samples.

Carries out biochemical analyses and determinations such as liver function, thyroid function, blood sugars, renal function, and cardiac function at the direction of professional staff.

## **LABORATORY TECHNICIAN**

### **PAGE No. 3**

Performs biochemical tests and analyses using electrophoresis or chromatography.

Analyzes biochemical and other data under the direction of professional staff and prepares reports.

Keeps informed of new laboratory techniques.

Performs multi-phasic tests on paving materials for compaction, moisture content, etc.

Analyzes soils for grain size and compaction.

Makes photometric tests of highway signal devices, markings, and signs.

Performs germination tests on agricultural grass, vegetable, flower and tree seeds to determine percentage of germination.

Tests crop seeds and grass seed mixtures for purity.

Examines seed samples for occurrence and type of noxious weeds.

Performs surgical procedures, post-mortem examinations, and tissue collection activities involving laboratory animals.

Makes injections and dissects animals.

Detects and diagnoses disease in laboratory animals; treats diseased animals under professional direction.

Keeps inventories of supplies and stocks on hand for laboratory use.

Maintains technical records and prepares reports.

Performs related work as assigned.

### **Additional Job Duties**

#### **Laboratory Technician 11 (Lead Worker)**

Coordinates the work of other Laboratory Technicians by scheduling assignments and overseeing the work.

Assures the work quantity and quality by requiring strict adherence to methods and procedures.

Explains work instructions and adapts, if necessary, pertinent general methods and procedures in order to meet the needs of the work area.

Schedules and oversees the maintenance, adjustment, or calibration of laboratory instruments, apparatus, or testing devices.

## **LABORATORY TECHNICIAN**

**PAGE No. 4**

### **Laboratory Technician 11 (Senior Worker)**

Performs on a regular basis laboratory technician assignments that are recognized as the most complex.

### **Laboratory Technician 12**

Exercises independent authority and responsibility for an assigned program area.

Serves as the recognized expert within a program area, and provides technical assistance to other departmental staff.

## **JOB QUALIFICATIONS**

### **Knowledge, Skills, and Abilities**

**NOTE:** Some knowledge in the area listed is required at the entry level, developing knowledge is required at the intermediate level, considerable knowledge is required at the experienced level, thorough knowledge is required at the advanced level, and extensive knowledge is required at the specialist level.

Knowledge of laboratory tests and analyses.

Knowledge of laboratory terminology and equipment.

Knowledge of methods of preparing stains, solutions, and media.

Knowledge of the methods of analyzing blood, sputum, milk, water, urine, food products, contaminants, soils, and industrial and municipal wastes.

Knowledge of the methods of testing cement, petroleum products, bituminous compounds, and construction steel.

Knowledge of Quality Assurance Procedures.

Ability to handle samples and laboratory equipment.

Ability to perform injections, collect tissue, and conduct autopsies and minor surgical techniques on laboratory animals.

Ability to make mathematical computations.

Ability to keep records.

Ability to communicate effectively.

Ability to maintain favorable public relations.

## **LABORATORY TECHNICIAN**

**PAGE No. 5**

### **Additional Knowledge and Abilities**

#### **Laboratory Technician 11 (Lead Worker)**

Ability to organize and coordinate technical activities of the work unit.

Ability to determine work priorities and assign work to other Laboratory Technicians.

#### **Laboratory Technician 11 (Senior Worker)**

Ability to perform the most complex laboratory technician assignments.

#### **Laboratory Technician 12**

Some knowledge of the programmatic and developmental aspects of assigned program area.

Ability to organize and carry out assigned program.

Ability to adapt new technology and methods to enhance program effectiveness.

### **Working Conditions**

Some jobs require an employee to be exposed to hazardous work environments.

Some jobs require an employee to work in an environment that involves exposure to unpleasant and noxious fumes and odors.

Some jobs require an employee to some risk of sustaining illness and injury from the use of chemicals, high-pressure laboratory systems, biological materials, and exposure to disease, radiation, and toxic chemicals.

Some jobs require an employee to work in close proximity to caustic chemicals in a confined area.

### **Physical Requirements**

None.

### **Education**

Possession of an associate's degree in engineering technology, the physical or biological sciences, or a related field.

### **Experience**

#### **Laboratory Technician 8**

No specific type or amount is required.

#### **Laboratory Technician 9**

One year of experience equivalent to a Laboratory Technician 8.

**LABORATORY TECHNICIAN**

**PAGE No. 6**

**Laboratory Technician E10**

Two years of experience equivalent to a Laboratory Technician, including one year equivalent to a Laboratory Technician 9.

**Laboratory Technician 11**

Three years of experience equivalent to a Laboratory Technician, including one year equivalent to a Laboratory Technician E10.

**Laboratory Technician 12**

Four years of experience equivalent to a Laboratory Technician, including two years equivalent to a Laboratory Technician E10 or one year equivalent to a Laboratory Technician 11.

**Alternate Education and Experience**

**Laboratory Technician E10**

Possession of a bachelor's degree or higher with 16 semester (24 term) credits in job-specific or related course work may be substituted for the education and experience requirements.

**Special Requirements, Licenses, and Certifications**

Some positions within this class series are assigned job duties that may require possession of a current, valid driver's license to operate a designated state vehicle.

**NOTE:** Equivalent combinations of education and experience that provide the required knowledge, skills, and abilities will be evaluated on an individual basis.

**JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION**

**Job Code**

LABTRYTCH

**Job Code Description**

Laboratory Technician

**Position Title**

Laboratory Technician-E

Laboratory Technician-A

Laboratory Technician-SS

**Position Code**

LABYTCHE

LABYTCHA

LABTCHSS

**Pay Schedule**

L32-006

L32-012

L32-013