

Laboratory Scientist 1

I. KIND AND LEVEL OF WORK

First-level, professional microbiological, chemical, clinical, physical, or environmental analysis work.

II. DISTINGUISHING CHARACTERISTICS

Under general supervision, performs standard newborn screenings or microbiological, chemical, clinical, physical, or environmental examinations to determine the presence and levels of microbiological analytes, genetic material, chemical analytes, or biomarkers and correct hazardous situations that may pose a human, animal, or environmental risk in accordance with state and federal regulations. Independently conducts routine sample testing and assists more senior laboratory scientists in conducting complicated assays, extractions, analyses, or tests. Incumbents regularly follow standard operating policies, procedures, and scientific methods; however, may suggest changes and use independent judgment in the absence of a more senior laboratory scientist. Daily work is performed independently; however, work is monitored by a more senior laboratory scientist or supervisor.

III. EXAMPLES OF WORK/DUTIES

(A position may not include all the work examples given, nor does the list include all that may be assigned.)

- Maintains and orders adequate inventory of supplies to meet laboratory needs;
- Operates, cleans, calibrates, and performs routine maintenance on laboratory equipment;
- Maintains traceability and chain of custody in accordance with lab procedures;
- Provides methodology training and instruction to student workers and other analysts that enables them to independently operate laboratory equipment and produce results that meet quality assurance criteria;
- Assists more senior laboratory scientists in emergency or investigation response activities by conducting analyses to ensure tests perform to specifications;
- Leads or assists validations and evaluations of new laboratory methodology for diagnostic assays;
- Performs the more routine standards and reagents preparation tasks;
- Performs routine or standardized sample testing or arrays and may investigate anomalous results under the supervision of a more senior laboratory scientist;
- Performs quality control testing to assure integrity of test results;
- Prepares and extracts samples using appropriate methodology and equipment so that quality data is obtained;
- Conducts routine microbiological, clinical, chemical, physical, or environmental examinations of animal or human food, milk, water, vegetation, seeds, body fluids and exudates;

- Reports anomalous examination results, including quality control failures, to a more senior laboratory scientist, lead worker, or unit supervisor and implements corrective actions following consultation;
- Routinely analyzes and interprets non-complex datasets;
- Performs examinations to generate data for data packets; and
- Recommends changes in established techniques and procedures to ensure the quality and reliability of data generated and reported using or relying on knowledges gained through training and experience.

IV. KNOWLEDGE, SKILLS, AND ABILITIES

- Knowledge of the basic principles and practices of microbiology, clinical, chemical, physical, or environmental analysis, general laboratory practices and methods, and laboratory safety;
- Employees performing chemical and environmental analysis work should have thorough knowledge of automated extraction techniques, and the operation and basic maintenance for advanced analytical instrumentation;
- Ability to accurately analyze samples or conduct scientific testing in accordance with established methodologies and standard operating procedures;
- Ability to use software programs to aid in the acquisition and interpretation of large, raw analytical data sets and concisely generate final data reports and results;
- Ability to think critically to solve analytical problems; and
- Ability to carry out analysis work, assemble material, and present data with scientific accuracy and thoroughness.

LICENSURE/CERTIFICATION/STATUTORY REFERENCES

Some positions may require licensure or certification as warranted.

SPECIAL WORK CONDITIONS

REFERENCES

None

REVISION HISTORY

Established: 12/2023