

Laboratory Scientist 3

I. KIND AND LEVEL OF WORK

Specialized, professional microbiological, clinical, chemical, physical, or environmental analysis work. Employees in this classification lead and perform complex 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.

II. DISTINGUISHING CHARACTERISTICS

Under limited supervision, independently conducts sample testing, extractions, arrays, or data analysis. Standard policies and procedures are followed; however, incumbents are given significant latitude in determining how work is accomplished, appropriate circumstances to deviate from standard policy or procedure, priority, daily testing schedules, and the order of tasks. Employees in this classification are more reliant on precedents than standard policies. At this level, employees may develop new, or make changes to existing, methodologies and make new instrument purchase recommendations. Daily work is performed independently with periodic, retrospective review by a more senior scientist, laboratory supervisor, or manager.

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.)

- Conducts complex newborn screenings or microbiological, chemical, physical, or environmental examinations;
- Independently analyzes samples that may have varied results;
- Serves as escalation point for lower-level laboratory scientists, making decisions on how to respond to control failures and unpredictable examination results;
- Performs assigned examinations with predictable and non-predictable results;
- Leads and performs complex troubleshooting;
- Determines appropriate brands and sources of instrumentation for examinations, recommends purchase, plans installation, schedules repair, designs and writes associated standard operating procedures (SOP), maintenance protocols, and safety risk assessments;
- Develops methods for new examinations;
- Safely stores and disposes of samples or specimen;
- Creates daily testing schedules and prioritizes unit work;
- Reviews the work of others within the unit;
- Prepares and issues examination results to customers as designated by the unit supervisor;
- Leads or performs the more complex tasks in emergency response activities or environmental investigations;

- Trains others on laboratory databases, methodologies, and other software;
- Monitors new developments in area(s) of focus, evaluates developments for efficacy, and makes adjustments so that procedures and instrument utilization in the unit are current and efficient;
- Compiles reviews, and assesses analysis information so that the data reported is complete and of sufficient quality for its intended purposes; and
- Creates data packet plans, compiles packets, analyzes data to determine whether tests meet defined specifications, writes final reports based on established procedure found in the methodology, and enters final results into the Laboratory Information Management System (LIMS) or a similar system, and submits complete and accurate data packets to the unit supervisor for review.

IV. KNOWLEDGE, SKILLS, AND ABILITIES

- Knowledge of quantitative research methodologies;
- Knowledge the principles and practices of newborn screening, microbiology, or clinical physical, chemical, pesticide, or environmental analysis;
- Knowledge of standard laboratory safety procedures, chemical terminology, and safety data sheets sufficient to safely engage in laboratory operations and minimize the potential for injury;
- Considerable knowledge of sophisticated analytical instrumentation and proprietary software systems;
- Leadership skills sufficient to constructively manage a scientific team, project, or study;
- Advanced writing skills sufficient to create unit operating guidelines and other administrative and training documents;
- Follows lab procedures as written and makes note of deviations, and if needed, verifies modifications to meet lab acceptance criteria;
- Maintains traceability and chain of custody in accordance with established procedure;
- Safely stores and disposes of samples or specimen;
- Ability to operate and perform in-depth troubleshooting of advanced, scientific instruments;
- Ability to safely conduct laboratory operations so that the potential for accident and injury is minimized;
- Critical thinking skills sufficient to create and prioritize daily unit sampling or testing schedules;
- 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; and
- Ability to think critically to solve complicated and complex analytical problems.

LICENSURE/CERTIFICATION/STATUTORY REFERENCES

Some positions may require licensure or certification as warranted.

SPECIAL WORK CONDITIONS

REFERENCES

None

REVISION HISTORY

Established: 12/2023