State Hygienic Laboratory
Diagnostic and Clinical Division
Environmental Laboratory Analyst

University Classification: Environmental Laboratory Analyst
Job Code: PHB1 Pay Level: 3A
Position #: 00259239, 00266150, 00259240
Org/Dept/Sub-dept #: 90-9050-00120
Position Reports to: Ryan Jepson Name 00012966 Position #

Position Specific Summary:
The State Hygienic Laboratory in Coralville is looking for an Environmental Laboratory Analyst (PHB1). This position will perform routine and non-routine environmental microbiology testing on water, sludge, food, and environmental surface samples using approved methods, including appropriate quality control measures and documentation. Answer general inquiries from various individuals and county health department personnel regarding water test results, sample collection procedures, etc.

FBI Clearance will be applied for this individual.

Travel required. Must possess a valid driver's license and clean driving record to pass UI Fleet Services and Risk Management protocols.

Shift: Mon-Fri 8:00 a.m.- 5:00 p.m., Holiday, rotating weekend hours, and on-call coverage is required.
Work Location: Coralville, IA
Work Modality: On-site
Position Status: 2 Year Specified Term

Key Areas of Responsibilities and Specific Job Tasks

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<tr>
<th>Classification</th>
<th>Specific Job Duties and Tasks</th>
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| Sample / Specimen Preparation and Analysis | • Perform sample accessioning within established holding times and evaluate samples for acceptability  
• Prepare and analyze routine bacteriology testing on environmental microbiology samples using various standardized procedures, principles, concepts and theories including quality control.  
• Suggest modifications or adapt established methods, procedures, or techniques to resolve difficult or complex problems.  
• Operate as primary analyst for testing on a variety of matrices.  
• Operate as backup analyst for the methods for which IDOC/DOC are acquired or maintained which include at this time the following: SM9223B (QT and PA), SM9221 B/E/F, SM9215, SM9222D, EPA 1603, TAYM/TYMC USP 61; EPA 1623.1 elution/concentration; Food: Salmonella, E.coli O157:H7, STEC, Listeria monocytogenes, Listeria species, Campylobacter Real Time BAX PCR, EPA 353.2 (nitrate)  
• Serve as a member of the Food Emergency Response Network  
• Perform testing of wastewater for infectious diseases |
| Instrumentation and Technology | • Perform daily operation and direct maintenance, training, troubleshooting and calibration of general laboratory instruments and equipment.  
• Perform complex chemical testing (nitrate) on the SEAL AQ400 flow-injection system. Primary analyst. Evaluate in-control status of every run and troubleshoot. |
### Local Job Description

**May 2024**

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<tr>
<th>Technical Competencies</th>
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<tr>
<td><strong>Data Analysis, Reporting and Documentation</strong></td>
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<td>• Prepare and review technical reports and communicate results to relevant personnel.</td>
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<td>• Document and review complex analytical procedures, results and reports; interpret, process and report results in laboratory information management system (LIMS).</td>
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<td>• Provide secondary data review and confirmation of others’ analytical work.</td>
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<td>• Write new standard operating procedures as needed; review and update existing standard operating procedures in a timely manner to comply with SHL quality management goals.</td>
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<td>• Prepare test validation/verification reports.</td>
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<tr>
<td>• Document and review routine data analysis, procedures, and results.</td>
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<td>• May prepare documentation for test validation reports.</td>
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<th>Quality Control, Quality Assurance and Quality Systems</th>
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<td>• Review, trend, and report quality control data and assure quality assurance procedures are in accordance with established policies.</td>
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<tr>
<td>• Identify and implement corrective and process improvement actions.</td>
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<tr>
<td>• Document and review data analysis, procedures, and results.</td>
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<td>• Release data and reports after review of results and analysis of quality control.</td>
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<th>Outreach and Communication</th>
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<td>• Engage in routine interaction with clients and local agencies and provide clarification of test results as necessary.</td>
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<td>• Assist in the creation and design of outreach materials and participate in presentations to local environmental and general interest groups.</td>
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<td>• Prepare manuscripts for publication when results warrant dissemination of new information.</td>
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<td>• Collaborate with external clients/stakeholders/researchers and provide scientific advice.</td>
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### Universal Competencies

**Collaboration/Positive Impact**

- Ability to work with a variety of individuals and groups in a constructive and civil manner and utilize existing resources and learning to achieve or exceed desired outcomes of current and future organizational goals/needs.

**Service Excellence/Customer Focus**

- Ability to meet or exceed customer service needs and expectations and provide excellent service in a direct or indirect manner. Ability to effectively transmit and interpret information through appropriate communication with internal and external customers.

**Welcoming and Respectful Environment**

- Ability to foster a welcoming and respectful workplace environment while recognizing personal differences. Ability to work with a variety of individuals and groups in a constructive and respectful manner while appreciating the importance of a workforce that benefits from the talents of all people across multiple characteristics, including: race, creed, color, religion, national origin, age, sex, pregnancy (including childbirth and related conditions), disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, or associational preferences.

### Technical Competencies

**Interpersonal Relationships**

- Explains the benefits of maintaining positive working relationships with associates.
- States the basic characteristics of good working relationships.
- Describes the organizational culture for interacting with others.
- Provides examples of individuals with good interpersonal skills and their specific skills.

**Laboratory Equipment Operation**

- Operates and calibrates laboratory equipment.
- Examines equipment to detect signs of disrepair.
| **(Working) Laboratory Practice Quality Assurance (LPQA)** (Basic) | • Helps others understand laboratory equipment safety and operating policies and procedures.  
  • Documents defective equipment and reports it to an appropriate supervisor.  
  • Utilizes quality control techniques to monitor and maintain laboratory equipment.  
  • Identifies the major concepts and stages of laboratory practice quality assurance.  
  • Describes regulations and ethical standards governing the LPQA process.  
  • Lists the basic technologies and equipment required for an effective LPQA program.  
  • Demonstrates awareness of the regulations affecting laboratory practice.  
| **Laboratory Results Analysis and Reporting** (Basic) | • Identifies the basic concepts, principles and types of laboratory results reporting.  
  • Identifies key objectives in reviewing and analyzing lab data.  
  • Names specific tools or techniques that can be used to support the analytical thinking process.  
  • Collects updated laboratory results for review and analysis.  
| **(Working) Laboratory Testing** | • Participates in collecting and processing specimens and samples according to test requests, standard operating procedures, and/or cGLP or comparable regulations.  
  • Operates laboratory equipment required to examine specimens.  
  • Produces reports based on laboratory test results to help in further diagnosis, treatment, research, surveillance, disease/contamination prevention, or determine quality of manufacturing process.  
  • Adheres to relevant policies and ethics for laboratory testing.  
  • Discusses major factors that can affect the accuracy of laboratory test results.  

This description is intended to indicate the kinds of tasks and levels of work difficulty that will be required of positions that will be given this title and shall not be construed as declaring what the specific duties and responsibilities of any particular position shall be. It is not intended to limit or in any way modify the right of any supervisor to assign, direct, and control the work of employees under his or her supervision. The use of a particular expression or illustration describing duties shall not be held to exclude other duties not mentioned that are of similar kind or level of difficulty.

As part of performing the key areas of responsibility and competencies described above, staff members are expected to meet reasonable standards of work quality and quantity, as well as expectations for attendance established by their supervisor. Staff members are also expected to comply with policies governing employee responsibilities and conduct, including those contained in the University Operations Manual.

**Proficiency levels are defined as:**

**Basic Application** - Uses basic understanding of the field to perform job duties; may need some guidance on job duties; applies learning to recommend options to address unusual situations.

**Working Experience** - Successfully completes diverse tasks of the job; applies and enhances knowledge and skill in both usual and unusual issues; needs minimal guidance in addressing unusual situations.

**Extensive Experience** - Performs without assistance; recognized as a resource to others; able to translate complex nuances to others; able to improve processes; focus on broad issues.

**Expert/Leader** - Seen as an expert and/or leader; guides, troubleshoots; has strategic focus; applies knowledge and skill across or in leading multiple projects/orgs; demonstrates knowledge of trends in field; leads in developing new processes.

**Position Qualifications**

| Education or Equivalency Required | A bachelor’s degree in Microbiology, Medical Technology or related biological science field or an equivalent combination of education and experience is required. |
| Required Qualification | • Demonstrate (typically 6 months) of experience preparing and analyzing routine bacteriology testing on water or food samples using various standardized procedures, principles, concepts and theories including quality control; or applicable laboratory experience. |
- Demonstrate (typically 6 months) of documenting, review and release of routine data and reports, after a review of results and of quality control.
- Demonstrate good teamwork and interpersonal skills, including relationship management within the unit and outside the immediate work unit.
- Ability to work in a high-volume, fast-paced environment.
- Demonstrate excellent verbal and written communication skills.
- Demonstrate basic math, computer, and Microsoft Excel skills.
- Experience pipetting in a laboratory setting.
- Possession of a valid state or commercial driver's license, and ability to meet University Fleet Safety Standards.

**Highly Desirable Qualification**

- Demonstrate an understanding of Environmental Microbiology sample testing (coliform bacteria in water; food pathogen analysis) and interpretations which include acceptance and holding times, dilution schemes, test performance characteristics, appropriate quality control, completion, and release of results.

**Desirable Qualification**

- Experience in bacterial culture and isolation techniques.
- Experience using molecular techniques such as RT-PCR and/or DNA sequencing.
- Experience in microscopy.

See requisition #24003128 at [https://jobs.uiowa.edu](https://jobs.uiowa.edu)
Applicable background checks will be conducted.

The University of Iowa prohibits discrimination in employment, educational programs, and activities on the basis of race, creed, religion, national origin, age, sex, pregnancy (including childbirth and related conditions), disability, genetic information, status as a U.S. veteran, service in the U.S. military, sexual orientation, gender identity, or associational preferences. The university also affirms its commitment to providing equal opportunities and equal access to university facilities. For additional information on nondiscrimination policies, contact the Senior Director, Office of Civil Rights Compliance, the University of Iowa, 202 Jessup Hall, Iowa City, IA 52242-1316, 319-335-0705, daod-ocrc@uiowa.edu.