University Classification: Environmental Laboratory Scientist
Job Code: PHB4  Pay Level: 6A
Position #: 00256763  Org/Dept/Sub-dept #: 90-9060
Position Reports to: Sarah May  00016626

Position Specific Summary:
This Professional and Scientific position will be filled as either an Environmental Lab Specialist (PHB2) or Environmental Lab Scientist (PHB4) based on candidate qualifications and interview evaluation. To express interest for consideration at both levels, please apply to both requisitions, 22001546 and 22001549.

The State Hygienic Laboratory in Coralville is looking for an Environmental Laboratory Specialist (PHB2) or an Environmental Lab Scientist (PHB4). This position will prepare and analyze samples, review instrument output and report results of environmental and/or food samples. As skills and experience are appropriate, this position will be responsible for the qualitative and quantitative analysis and method development for the determination of pesticide residues in vegetation, soil, and other unique matrices. Additional duties may include environmental sample analysis and method development, as needed, in support of SHL grant, contract and fee-for-service operations, specific project management, project quality oversight and report preparation. Finalist must be available to work some weekends and more than an 8 hour workday as needed. Must be willing to participate in SHL emergency response mission (e.g. collection and/or analysis of environmental or food samples).

Key Areas of Responsibilities and Specific Job Tasks

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<th>Classification</th>
<th>Specific Job Duties and Tasks</th>
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| Sample/Specimen Preparation and Analysis | Must be able to perform sample preparation using QuEChERS, Solid Phase Extraction, and other sample preparation methodologies as required and/or applicable followed by analysis using HPLC, LC/MS/MS instrumentation, GC and GC/MS.  
  - Prepare and document standard and other solutions.  
  - Perform weekend/on call coverage for nutrient demand testing which will include BOD setup and read-backs as well as other short holding time tests. |
| Instrumentation and Technology | Perform daily operation and direct routine maintenance, training, troubleshooting and calibration of laboratory instruments and equipment.  
  - Coordinate with service engineers to ensure that instrumentation is kept in ready status.  
  - Must be familiar with and be able to learn new data acquisition systems. Must understand and demonstrate analytical proficiency with the use of liquid and gas chromatography and mass spectrometry (both single and tandem quadrupole).  
  - Must understand data acquisition; the use, and installation, of software needed to allow instrumentation to operate normally.  
  - Must be able to troubleshoot, diagnose and repair problems with non-functioning instrumentation.  
  - Select HPLC columns as appropriate for analytes. |
| Data Analysis, Reporting and Documentation | Document and review routine data analysis, procedures, and results. Release routine data and reports after review of results and analysis of quality control.  
  - Must be familiar with, and be able to learn new, data analysis systems - including SHL’s OpenELIS LIMS.  
  - Assist in writing new and annual review of existing standard operating procedures. |
| **Quality Control, Quality Assurance and Quality Systems** | • May prepare documentation for test validation reports.  
• Perform, review, trend and report quality control data and assure quality assurance procedures are in accordance with established policies.  
• Identify and implement correction and process improvement actions. |
| **Outreach and Communication** | • Engage in routine interactions with clients.  
• Explain and interpret test results to clients and regulators and recommend further testing when indicated. |
| **Administration** | • Adhere to rules, regulations and standards necessary to maintain compliance with regulatory agencies. |
| **Leadership** | • Work with other staff to ensure that samples are received, stored, and processed in a timely manner. |
| **Financial Responsibility** | • Initiate purchasing requests for supplies, equipment, etc. |

**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. |
| **Diversity, Equity and Inclusion** | Ability to work with a variety of individuals and groups in a constructive and respectful manner while appreciating the unique contribution of an inclusive workforce that brings together the talents of people across multiple identities, including: race, creed, color, religion, national origins, age, sex, pregnancy, disability, veteran or military status, sexual orientation, gender identity, or associational preferences. |
| **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. |

**Technical Competencies**

| **Interpersonal Relationships (Expert/Leader)** | • Knowledge of the techniques and the ability to work with a variety of individuals and groups in a constructive and collaborative manner.  
• Sets the tone for interacting with other business functions or units.  
• Creates initiatives that foster communication, directness and spirit of cooperation. |
| **Laboratory Equipment Operation (Expert/Leader)** | • Knowledge of and ability to operate, calibrate and maintain laboratory equipment used in quantitative and qualitative analysis while adhering to standard laboratory quality, safety and operating procedures.  
• Uses knowledge of laboratory equipment operation to better conduct quantitative and qualitative analyses.  
• Contributes to laboratory equipment performance improvement standards.  
• Leads in developing strategies for safe, reliable, and effective laboratory equipment operation.  
• Constructs improved policies and procedures for near-miss reporting.  
• Prepares reports that champion the value and use of more effective laboratory equipment to financial decision-makers.  
• Monitors laboratory equipment trends and developments in diverse environments. |
| **Laboratory Practice Quality Assurance (LPQA) (Expert/Leader)** | • Knowledge of guidelines and principles for quality assurance in a laboratory environment; ability to monitor and evaluate the appropriateness of laboratory practices for general laboratory safety and adherence to policies, regulations, and certification requirements from agencies such as CLIA, EPA, FDA, NIH, etc.  
• Designs LPQA processes in line with laboratory practice strategies.  
• Champions the use of new technologies to improve the quality of lab practices and reduce organizational costs. |
- Establishes industry norms, standards and guidelines for LPQA.
- Discusses future developments in LPQA qualification protocols, assessment and specifications.
- Stays abreast of LPQA trends and makes recommendations to the organization accordingly.
- Develops a theoretical understanding of LPQA and mentors on issues and considerations.

Laboratory Results Analysis and Reporting
(Working)

- Knowledge of laboratory results reporting standards and procedures; ability to effectively review, analyze and report laboratory results.
- Makes a systematic comparison of actual test results against expected results.
- Analyzes the accuracy of laboratory data and test results; assesses common problems and/or errors that can occur.
- Detects and summarizes test results and findings by producing reports.
- Interprets and explains results of data and test results.
- Reviews the results to ensure the quality and accuracy of data gathering and analysis.

Laboratory Testing
(Expert/Leader)

- Knowledge of and ability to use laboratory equipment to examine specimens/samples according to test requests by approved, validated methods and to obtain accurate results following laboratory policies, regulations, and ethics.
- Designs standard procedures to ensure the accuracy and timeliness of laboratory testing.
- Advocates the design of advanced equipment and methodologies for laboratory testing.
- Elaborates on prior experiences with legal and safety issues for effective laboratory testing.
- Leads in the establishment of best practices for laboratory testing.
- Monitors industry trends and direction for laboratory testing.
- Generalizes on past and future innovations of laboratory testing.

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
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<th>Education or Equivalency Required</th>
<th>A Master's degree in chemistry, including extensive knowledge of analytical instrumentation and method development/validation, or an equivalent combination of education and experience is required.</th>
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| Required Qualification           | • 3-5 years of experience in appropriate laboratory techniques is required.  
• Excellent written and verbal communication skills are required.  
• Demonstrate a commitment to diversity, equity and inclusion. This will include the ability to work with a variety of individuals and groups in a constructive and respectful manner, while appreciating the unique contribution that an inclusive workforce will foster. |
| Highly Desirable Qualification   | • PhD in chemistry with extensive knowledge of analytical instrumentation and method development/validation.  
• Extensive experience with hands-on operation, maintenance, and troubleshooting of LC/MS/MS instrumentation. |
| Desirable Qualification          | • Analytical experience using LCMS/MS to determine Perfluoroalkyl and polyfluoroalkyl substances (PFAS) in water and other matrices. |

See requisition # 22001546 and 22001549 at [https://jobs.uiowa.edu](https://jobs.uiowa.edu)
Applicable background checks will be conducted.

The University of Iowa is an equal opportunity/affirmative action employer. All qualified applicants are encouraged to apply and will receive consideration for employment free from discrimination on the basis of race, creed, color, national origin, age, sex, pregnancy, sexual orientation, gender identity, genetic information, religion, associational preference, status as a qualified individual with a disability, or status as a protected veteran.