### University Classification:

Environmental Laboratory Specialist

<table>
<thead>
<tr>
<th>Job Code: PHB2</th>
<th>Pay Level: 4A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position #: 00256762</td>
<td>Org/Dept/Sub-dept #: 90-9060</td>
</tr>
<tr>
<td>Position Reports to: Dustin May</td>
<td>Position # 00016628</td>
</tr>
</tbody>
</table>

### Position Specific Summary:

This Professional and Scientific position will be filled as either an Environmental Lab Analyst (PHB1) or Environmental Lab Specialist (PHB2) based on candidate qualifications and interview evaluation. To express interest for consideration at both levels, please apply to both requisitions, 22001453 and 22001454.

The State Hygienic Laboratory in Coralville is looking for a Laboratory Analyst or Specialist to prepare environmental samples and analyze the data collected. A Specialist will prepare, analyze samples, review instrument output, and report results of environmental and/or food samples. This position will participate in SHL emergency response mission (e.g. collection and/or analysis of environmental or food samples). Must be available to work some weekends and more than an 8 hour workday as needed.

### Key Areas of Responsibilities and Specific Job Tasks

<table>
<thead>
<tr>
<th>Classification</th>
<th>Key Areas of Responsibility</th>
<th>Specific Job Duties and Tasks</th>
</tr>
</thead>
</table>
| Sample / Specimen Preparation and Analysis | • Operate as primary analyst for routine and more complex testing. Specifically, conduct HPLC/LC-MS/MS and GC/GCMS analysis of a variety of organic compounds that include pharmaceuticals, glycols, herbicides, insecticides and extractable hydrocarbons in environmental matrices such as water, soil, vegetation and food as well as other matrices. Prepare laboratory standards and sample spiking materials.  
• Prepare environmental samples for radionuclides (using alpha spectrometry, gas-flow proportional counting, gamma spectrometry, and liquid scintillation counting), biochemical oxygen demand (BOD), other parameters.  
• Apply 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 and procedures, regulatory protocols and good laboratory practices in an ethical and confidential manner.  
• Lead and participate in research and development projects.  
• Prepare samples involved in potential radiological emergencies  
• 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 | • Oversee daily operation of laboratory instruments and equipment to examine specimens/samples according to test requests by approved, validated methods and to obtain accurate results following laboratory policies and procedures, regulatory protocols and good laboratory practices in an ethical and confidential manner.  
• Ensure calibration and preventive maintenance activities are performed on analytical instruments including but not limited to HPLC/LC-MS/MS, GC/GCMS, GC/FID, FTIR, alpha spectrometers, gas-flow proportional counters, gamma spectrometers, and liquid scintillation counters while adhering to standard laboratory quality, safety and operating procedures. | |
- Research and recommend equipment and instruments for analytical services area.

**Data Analysis, Reporting and Documentation**
- Prepare and review technical reports and communicate results to relevant personnel.
- Document and review complex analytical procedures, results and reports; interpret, process and report results in laboratory information management system (LIMS).
- Provide secondary data review and confirmation of others' analytical work.
- 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.
- Prepare test validation/verification reports.
- Document and review routine data analysis, procedures, and results.
- May prepare documentation for test validation reports.

**Quality Control, Quality Assurance and Quality Systems**
- Review, trend, and report quality control data and assure quality assurance procedures are in accordance with established policies.
- Identify and implement corrective and process improvement actions.
- Document and review data analysis, procedures, and results.
- Release data and reports after review of results and analysis of quality control.

**Outreach and Communication**
- Engage in routine interaction with clients and local agencies and provide clarification of test results as necessary.
- Assist in the creation and design of outreach materials and participate in presentations to local environmental and general interest groups.
- Prepare manuscripts for publication when results warrant dissemination of new information.
- Collaborate with external clients/stakeholders/researchers and provide scientific advice.

**Administration**
- Adhere to certification standards, rules and or, regulations necessary to maintain compliance with regulatory agencies.
- Organize and maintain laboratory records.

**Leadership / Human Resources**
- Serve as technical expert for specific instrumentation and test/method combinations.
- Provide direction, assignments, feedback, coaching and counseling to assure outcomes are achieved.
- Provide input on HR activities such as recruitment and promotion.

**Financial Responsibility**
- Initiate purchasing requests for supplies, equipment, etc.
- Assist in budget development and review.

**Universal Competencies**

<table>
<thead>
<tr>
<th>Competency</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collaboration/Positive Impact</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Diversity, Equity and Inclusion</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Service Excellence/Customer Focus</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

**Technical Competencies**

State Hygienic Laboratory
UNIVERSITY OF IOWA

Environmental Lab Specialist, Radiochemistry
LOCAL JOB DESCRIPTION February 2022
Page 2 of 4
| **Interpersonal Relationships** (Working) | Collaborates with departmental associates and management.  
Adapts interaction style to situations and people.  
Identifies roles and responsibilities for self and others.  
Demonstrates an understanding of alternative points of view.  
Explains impact of interactions with individuals and groups. |
| **Laboratory Equipment Operation** (Extensive) | Operates and calibrates equipment in diverse laboratory environments.  
Advises on diagnosing and resolving laboratory equipment malfunctions.  
 Oversees laboratory equipment quality recordkeeping.  
Establishes risk-based criteria to evaluate laboratory equipment performance.  
Establishes laboratory emergency response protocols and their rationale.  
Supervises the safe purging of waste from laboratory equipment. |
| **Laboratory Practice Quality Assurance (LPQA)** (Working) | Examines laboratory sample collection, handling and analyzation procedures.  
Operates quality testing equipment and verifies collected data.  
Adheres to related guidelines, regulations, standards and safety procedures in the LPQA process.  
Handles actual or potential problems that affect the analytical results of an LPQA program.  
Assesses laboratory equipment calibration and maintenance at various LPQA stages. |
| **Laboratory Results Analysis and Reporting** (Working) | 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** (Extensive) | Supervises specimen/sample collection and processing for various test requests consistent with standard operating procedures, cGLP or other regulations.  
Trains others on the appropriate operation of laboratory equipment; addresses safety issues.  
Oversees the testing/examination of specimens/samples per testing SOP, cGLP or other regulations.  
Evaluates the accuracy of results obtained from laboratory tests.  
Recommends solutions to improve existing procedures of laboratory tests.  
Directs relevant policy, regulatory and ethics compliance for all laboratory tests. |

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

<table>
<thead>
<tr>
<th>Education or Equivalency Required</th>
<th>Bachelors’ degree in analytical chemistry or related field or an equivalent combination of education and experience.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Qualification</td>
<td>• 1-3 years of relevant laboratory experience.</td>
</tr>
<tr>
<td></td>
<td>• 1-3 years with at least 2 of the following techniques: Microscopy, GC, GCMS, LC, LCMS/MS, Alpha Spectrometry, Gamma Spectrometry, Gas-flow Proportional Counting, or Liquid Scintillation Counting.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrates an extensive proficiency in effective communication concepts, using varied tools and techniques to transmit, receive and interpret information both written and verbally.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrates an extensive proficiency with Microsoft Office products and other computer-based programs.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrates extensive knowledge and experience using laboratory instrumentation.</td>
</tr>
<tr>
<td></td>
<td>• Working familiarity with state and federal environmental testing regulations.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrates working knowledge and experience with Laboratory Information Systems (LIMS).</td>
</tr>
<tr>
<td>Highly Desirable Qualification</td>
<td>• 3-5 years of relevant laboratory experience.</td>
</tr>
<tr>
<td></td>
<td>• 3-5 years with at least 2 of the following techniques: Microscopy, GC, GCMS, LC, LCMS/MS, Alpha Spectrometry, Gamma Spectrometry, Gas-flow Proportional Counting, or Liquid Scintillation Counting.</td>
</tr>
<tr>
<td></td>
<td>• Experience with gas chromatography with various detectors such as mass spectrometer, electron capture detector (ECD), flame ionization detector (FID) highly desired.</td>
</tr>
<tr>
<td></td>
<td>• Experience with high performance liquid chromatography with various detectors such as mass spectrometer, ultraviolet (UV), and fluorescence highly desired.</td>
</tr>
<tr>
<td></td>
<td>• Experience with radiochemical testing, including Alpha Spectrometry, Gamma Spectrometry, Gas-flow Proportional Counting, or Liquid Scintillation Counting is highly desired.</td>
</tr>
<tr>
<td></td>
<td>• Environmental lab testing experience (e.g., water or other environmental testing) in high throughput lab setting is a highly desirable skill.</td>
</tr>
<tr>
<td></td>
<td>• Working level analytical experience in an ISO17025 or equivalent accredited laboratory.</td>
</tr>
<tr>
<td></td>
<td>• Working familiarity with state and federal environmental testing regulations.</td>
</tr>
<tr>
<td></td>
<td>• Demonstrates working knowledge and experience with Laboratory Information Systems (LIMS).</td>
</tr>
</tbody>
</table>

See requisition # 22001453 and 22001454 at 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.