State Hygienic Laboratory
Diagnostic and Clinical Division
Chemical Threat, Environmental Lab Specialist

University Classification: Environmental Lab Specialist
Job Code: PHB2
Pay Level: 4A
Position #: 00266476
Org/Dept/Sub-dept #: 90-9050
Position Reports to: Stephen Treimer
Name
Position #

Position Specific Summary:
This Professional and Scientific position will be filled as either an Environmental Lab Specialist (PHB2) or Environmental Lab Analyst (PHB1). Please indicate in your cover letter, which position you want to be considered for, or you can indicate both.

The State Hygienic Laboratory in Coralville, is looking for a Chemical Threat Laboratory Specialist or Analyst, to prepare clinical and environmental samples, and analyze the data collected. The position will respond to human exposures to chemical threats (terrorism) as directed by the Laboratory Response Network of the Centers for Disease Control and Prevention. The position also receives and attempts to identify unknown chemical threats submitted to the laboratory by various emergency response organizations, e.g. hazardous materials teams. The Specialist or Analyst will be responsible for maintaining and operating various instrumentation and will have very similar education and experience as an Associate Chemist (PRG2), but in an environmental lab setting.

Normal working hours are 8am to 5pm, Monday through Friday. However, this position must be willing to be available to respond to emergency response analyses at potentially unconventional business hours or on the weekend in emergency situations.

Key Areas of Responsibilities and Specific Job Tasks

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<th>Classification</th>
<th>Key Areas of Responsibility</th>
<th>Specific Job Duties and Tasks</th>
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<tr>
<td>Sample / Specimen Preparation and Analysis</td>
<td>• Under supervision perform moderately difficult analyses, troubleshoot any problems with procedures or instrumentation, document results, assist with report development, and review corresponding reports, notebooks, and calculations for completeness. • Will work with clinical samples (urine, blood, serum, saliva) and will be trained to handle those samples carefully. • Perform complex testing. • Modify or adapt established analytical methods, procedures, or techniques to resolve problems. • Assist in development of new and alternative methods as needed. • Provide technical expertise in specific area. • Will assist the analysis of environmental samples for other sections as time permits.</td>
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<tr>
<td>Instrumentation and Technology</td>
<td>• Oversee daily operation and maintenance, training, troubleshooting and calibration of laboratory instruments and equipment. • May research and recommend equipment and instruments for area. • May interact with equipment vendors, purchasers, and technical support for maintenance and upgrade of instruments.</td>
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<tr>
<td>Data Analysis, Reporting and Documentation</td>
<td>• Document and review complex analytical data and procedures, results and reports; release data, interpret and report results. • Write new and review existing standard operating procedures.</td>
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State Hygienic Laboratory
UNIVERSITY OF IOWA

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<th>LOCAL JOB DESCRIPTION</th>
<th>November 2022</th>
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- **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 correction and process improvement actions.

- **Outreach and Communication**
  - Deliver presentations to general public, environmental interest groups and educational groups of all levels.
  - Will interact with similar professionals in the peer group of the Laboratory Response Network and attend meetings sponsored by the network.

- **Administration**
  - Adhere to certification standards, rules and or, regulations necessary to maintain compliance with regulatory agencies.
  - Will satisfy requirements of the Laboratory Response Network for a level 2 laboratory.

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

**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 (Working) | Collaborates with departmental associates and management. |
| Laboratory Equipment Operation (Extensive) | Operates and calibrates equipment in diverse laboratory environments. |
| Laboratory Practice Quality Assurance (LPQA) (Working) | Examines laboratory sample collection, handling and analyzation procedures. |

- 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.
- 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.
- 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.

### Standard Operating Procedures (SOP) (Working)
- Assists in establishing a standard operating procedure based on workflow and environment review.
- Tracks deviations from and modifications to existing SOPs in business operations.
- Reviews the efficiency of standard operating procedures in terms of performance improvement.
- Adjusts SOPs according to changes in organizational and industry procedures.
- Ensures compliance with industry standards, regulations and policies.

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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<tr>
<th>Education or Equivalency Required</th>
<th>Bachelor of Science in chemistry, analytical chemistry, or related field, or an equivalent combination of education and experience.</th>
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<td>Required Qualification</td>
<td>Working relevant laboratory experience and knowledge of analytical chemistry. Demonstrate working data acquisition and analysis experience with at least two of the following techniques: FTIR, Raman, Solid Phase Extraction, GC, GCMS, LC, or LC-MS/MS.</td>
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</table>
- Demonstrates effective communication, using varied tools and techniques to transmit, receive, and interpret information, both written and verbally.
- Demonstrate the 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 and needs.

**Highly Desirable Qualification**

- A Master's degree in analytical chemistry is highly desired.
- Experience with gas chromatography or liquid chromatography.
- Experience with mass spectrometry and the application toward quantitative and qualitative analysis.
- Identification of unknown chemical samples.
- Clinical laboratory analysis - working with urine and blood borne pathogens.
- Method validation and/or method verification.
- Knowledge of- and work with forensic sample handling procedures.
- Demonstrates working knowledge and experience with Laboratory Information Systems (LIMS).
- Work with first responders and other emergency response organizations.
- Knowledge of CBRNe threats with an emphasis on Chemical Agents of Opportunity for Terrorism

See requisition # 22005760 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, 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.