



**State Hygienic Laboratory  
Environmental Health Division  
Chemical Threat Coordinator**

University Classification: **Emergency Preparedness & Terrorism Response Coordinator**

Job Code: **PH01** Pay Level: **5A**

Position #: **00113482** Org/Dept/Sub-dept #: **90-9050**

Position Reports to: **Michael Schueller** **00117010**

Name Position #

**Position Specific Summary:**

The purpose of this position is to lead the State Hygienic Laboratory (SHL) at the University of Iowa in developing, evaluating, and documenting an emergency preparedness program for chemical threats and environmental hazards by providing expert scientific and technical advice and expertise for conducting accurate and timely laboratory analyses. The Chemical Threat Coordinator is the Laboratory Chemical Safety Officer and leads efforts to respond to natural or human-caused emergencies, disasters, and terrorist acts so that SHL staff can successfully perform analytical tests. The position will develop, validate, improve, and maintain all-hazard procedures for handling human clinical specimens, unknown environmental samples, and other potentially hazardous materials. This position will serve as a source of technical information in order to promote, maintain, and improve relationships with critical response partners through the design and implementation of a structured outreach program. This position provides preparedness coordination across sections of the Environmental Health Division and partners closely with the Biological Threat Coordinator and others in the Diagnostic and Clinical Division.

**Work Schedule:** M-F, 8 a.m.-5 p.m, with possible nights, weekends and holidays to process samples. Additionally, frequent required travel.

**Position Status:** Regular

**Work Modality:** On-Site, In-Person

**Key Areas of Responsibilities and Specific Job Tasks**

Classification Key Areas of Responsibility	Specific Job Duties and Tasks
<b>Technical Laboratory Capability</b>	<ul style="list-style-type: none"> <li>• Develop and maintain all-hazards procedures for sampling, receiving, handling, triaging, pre-testing, analyzing, and disposing of potentially hazardous environmental samples and biological specimens working closely with the Biological Threat Coordinator.</li> <li>• Develop, test, and evaluate those aspects of the procedures that focus on the safe analyses for chemical threat agents from biological specimens and environmental samples for scientific accuracy, sensitivity, and precision.</li> <li>• Contribute as a member of the team that will analyze unknown environmental samples for chemical agents, as appropriate, through the practical application of LRN laboratory techniques to the recognized competency level.</li> <li>• Prepare and analyze routine and/or more complex environmental and/or biological samples/specimens using standardized procedures, principles, practices, concepts and theories.</li> <li>• Suggest modifications or adapt established methods, procedures, or techniques to resolve difficult or complex problems.</li> <li>• Operate as primary analyst for testing on a variety of matrices.</li> </ul>
<b>Instrumentation and Technology</b>	<ul style="list-style-type: none"> <li>• Perform daily operation and direct maintenance, training, troubleshooting and calibration of laboratory instruments and equipment.</li> </ul>
<b>Consultation</b>	<ul style="list-style-type: none"> <li>• Incorporate feedback from the use and evaluation of the algorithms used in the handling and processing of submitted samples and from drills and exercises to enhance their effectiveness in generating and reporting data that are scientifically valid and quickly communicated.</li> </ul>

	<ul style="list-style-type: none"> <li>• Research current methods and emerging techniques for an all-hazards and all-matrices response to a chemical threat, or other emerging health threat event.</li> <li>• Oversees the collaboration with emergency preparedness and response networks at local, state and federal levels to develop and implement plans, policies, and procedures to prepare for and respond to a public health emergency involving a chemical threat agent.</li> <li>• Participate on various local and state emergency preparedness committees, exercises, and drills.</li> <li>• Coordinate emergency response events and communicate results to internal and external partners, including use of incident command system.</li> <li>• Co-Lead with the Biological Threat coordinator, SHL's efforts to maintain an effective continuity of operations plan.</li> <li>• Recommend and develop strategies to improve SHL's outreach and engagement strategies with local, state, and federal partners.</li> <li>• Assist staff to perform routine chemical safety risk assessments.</li> <li>• Oversees the collaboration with stakeholders and agencies to develop and implement plans and policies for notification of emergencies and other incidents.</li> <li>• Advise the director when the COOP needs to be implemented and ICS activated. Regularly communicate with the director and associate directors regarding an emerging emergency situation.</li> <li>• Implements a management system that promotes flexibility and maximizes the ability to deliver surge capacity related to chemical threat response.</li> </ul>
<b>Reports</b>	<ul style="list-style-type: none"> <li>• Prepare special and periodic reports on program related operational and fiscal activities, including grant-established performance measures and deliverables.</li> <li>• Perform data analysis for emergency preparedness activities and report to the laboratory director, University, local, state, or federal entities, as required by the specific regulation and technical area or requested by internal or external entities.</li> <li>• Prepare written documentation in the form of after action reports for exercises, drills, inspections and incidents.</li> <li>• Develop, review, and update key protocols in the area of chemical threat preparedness.</li> <li>• Performs an annual risk assessment of the emergency preparedness program related to chemical threats and provide it to the director and associate directors.</li> <li>• Perform an after action report after each chemical related emergency event and provide the report to the director and associate directors.</li> </ul>
<b>Education/Training, Outreach and Communication</b>	<ul style="list-style-type: none"> <li>• Research information to develop training documents and educational outreach curricula directed to local public health officials, first responders, and other partners who would seek out the SHL to analyze suspicious environmental and clinical specimens.</li> <li>• Instruct first responders, emergency medical personnel, and other external partners in acceptable protocols for specimen/sample triage and chain-of-custody. In particular, the chemical threat coordinator trains first responders and others by providing an introduction to chemical safety, chemical threat agents, sample collection, transportation, and chain-of-custody protocols, and discussing complementary roles of SHL and first responders, local public health and state agencies.</li> <li>• Develop training opportunities in the area of chemical safety, chemical threat preparedness for HazMat teams/first responders, and other partners.</li> <li>• Develop and deliver presentations for HazMat teams/first responders, and other partners at various local, state, and national meetings/conferences.</li> <li>• Develop, conduct, and maintain chemical safety training programs and informational materials.</li> </ul>

	<ul style="list-style-type: none"> <li>• Collaborate with the health educators and trainers associated with the SHL and others within SHL such as the State Training Coordinator, who have related responsibilities for education and training.</li> <li>• As a subject matter expert, provide chemical threat and emergency response training to internal SHL staff and external staff who need the information.</li> <li>• Assemble materials including chemicals and written materials that can be distributed to hazardous materials teams to allow them to practice identifying unknown materials with their field identification equipment. Provide written feedback to the teams discussing any discrepancies between results and possible solutions for improvement.</li> <li>• Coordinate staff and laboratory training activities on chemical threat programs.</li> <li>• Annually review incident command system (ICS) procedures, create exercises and drills to test the system, and train staff on the ICS.</li> <li>• Plan, present and participate in various conferences, exercises and drills related to public health emergency preparedness and emergency management.</li> <li>• Develop and execute exercises and drills to challenge SHL's readiness for emergency response.</li> <li>• Perform chemical safety oriented training and outreach to SHL partners such as HazMat teams and local public health.</li> <li>• Inform and educate the local and state public health community regarding laboratory science.</li> <li>• Explain test results to clients and regulators and recommend further testing when indicated.</li> <li>• Deliver presentations to general public, environmental interest groups and educational groups of all levels.</li> </ul>
<b>Grant Writing</b>	<ul style="list-style-type: none"> <li>• Research and prepare grant proposals for the Public Health Emergency Preparedness Cooperative Agreement, Association of Public Health Laboratories (APHL) projects, and other opportunities.</li> <li>• Develop the internal work plan for the Public Health Emergency Preparedness Cooperative Agreement and other funded projects as assigned.</li> </ul>
<b>Financial Responsibility</b>	<ul style="list-style-type: none"> <li>• Monitor expenses related to chemical threat response.</li> <li>• Verifies financial and staff resources are in place to facilitate laboratory's response and recovery.</li> </ul>
<b>Regulatory Compliance</b>	<ul style="list-style-type: none"> <li>• Understand and implement federal, state, and local regulatory requirements and guidelines.</li> <li>• Develop and implement regulatory-based safety programs.</li> <li>• Supervise the inspection and audit process for chemical safety of SHL's site reviews.</li> <li>• Maintain chemical safety policies and documents required by regulatory agencies and/or University oversight.</li> <li>• Maintain adherence to security, incident response, operational, and personnel suitability protocols, as well as managing updates to manuals on an annual basis.</li> <li>• Schedule, develop, and conduct annual training as required by the CDC and identified through after action reports.</li> <li>• Recommend risk management strategies in order to prevent breach of security protocols and non-compliance with CDC regulations.</li> <li>• Implement federal, state and local regulatory requirements and guidelines.</li> <li>• Develop and implement mitigation strategies based on chemical risk assessment findings.</li> <li>• Develop and implement regulatory-based chemical safety programs.</li> <li>• Oversees staff compliance with legal and regulatory requirements related to the managing of emergency events.</li> </ul>
<b>Data Analysis</b>	<ul style="list-style-type: none"> <li>• Review and submit data analysis results for the chemical threat program.</li> </ul>

<b>Leadership / Supervision</b>	<ul style="list-style-type: none"> <li>• Regularly communicates with staff, the director and associate directors regarding emergencies and SHL's role in the response.</li> <li>• Serve as one of SHL's duty officers by carrying the on-call emergency response phone when required, coordinate the development and maintenance of on-call procedures, and be willing to assist after hours and during weekends and holidays when necessary to ensure a 24/7 response capability.</li> <li>• Serve as an informational liaison between laboratories, physicians, and other medical responders submitting clinical specimens from suspicious chemical events and SHL chemists through planning, exercises and drills, the use of subject matter expertise and literature investigations.</li> <li>• Communicate with first responders, emergency field personnel, and health care providers to ensure the proper collection, labeling and shipment of clinical specimens and environmental samples that are suspected of containing toxins or their metabolites.</li> <li>• Distribute sampling guidelines to and solicit feedback from first responders throughout Iowa. Guidelines for sample collection, labeling, packaging, handling, shipping, reporting will draw on the LRN and CDC experience with chemical threat preparedness and response.</li> <li>• Manage response to hazardous chemical spills and/or potential exposures.</li> <li>• Manage emergency decontamination and exposure prevention policies, processes, and procedures related to chemical agents.</li> <li>• Become proficient at using all of the sample screening instruments and wet chemistry methods involved in triaging unknown specimens.</li> <li>• Collect and catalogue common household and industrial chemicals and analyze using the sample screening instruments. Compile and maintain a library of expected results that can be quickly referenced when processing unknown environmental samples.</li> <li>• Work to improve and disseminate sample collection kits and procedures for collecting environmental and clinical samples suspected of containing toxins or their metabolites.</li> <li>• Develops new partnerships to ensure effective emergency response.</li> <li>• Provide mentorship for public health interns, fellows, and associates.</li> <li>• Co-chair the safety committee with the Biological Threat Coordinator.</li> <li>• Recommend communication needs during an emergency.</li> <li>• Maintain a partner organization for emergency preparedness database list.</li> <li>• Regularly send routine messages to partner organizations regarding chemical threat agents.</li> </ul>
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### Universal Competencies

<b>Collaboration/Positive Impact</b>	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.
<b>Diversity, Equity and Inclusion</b>	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.
<b>Service Excellence/Customer Focus</b>	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

<b>Clinical Laboratory Testing</b> (Working)	<ul style="list-style-type: none"> <li>• Participates in collecting and processing specimens and samples according to test requests, standard operating procedures, and/or cGLP or comparable regulations.</li> <li>• Operates laboratory equipment required to examine specimens.</li> <li>• Produces reports based on laboratory test results to help in further diagnosis, treatment, research, surveillance, disease/contamination prevention, or determine quality of manufacturing process.</li> <li>• Adheres to relevant policies and ethics for laboratory testing.</li> <li>• Discusses major factors that can affect the accuracy of laboratory test results.</li> </ul>
<b>Laboratory Results Reporting</b> (Working)	<ul style="list-style-type: none"> <li>• Makes a systematic comparison of actual test results against expected results.</li> <li>• Analyzes the accuracy of laboratory data and test results; assesses common problems and/or errors that can occur.</li> <li>• Detects and summarizes test results and findings by producing reports.</li> <li>• Interprets and explains results of data and test results.</li> <li>• Reviews the results to ensure the quality and accuracy of data gathering and analysis.</li> </ul>
<b>Consulting</b> (Extensive)	<ul style="list-style-type: none"> <li>• Analyzes and fully documents client requirements.</li> <li>• Works with client to identify alternative solutions and associated pro's and con's.</li> <li>• Prepares proposals and presentations for a consulting opportunity.</li> <li>• Monitors consulting assignments versus expectations.</li> <li>• Applies experience to developing and executing multiple consulting assignments.</li> <li>• Manages all aspects and phases of a consulting relationship.</li> </ul>
<b>Crisis Management</b> (Expert/Leader)	<ul style="list-style-type: none"> <li>• Describes a successful track record of various high-level crisis management positions in diverse industries.</li> <li>• Defines multiple crisis levels and types of response required for each level.</li> <li>• Directs the internal and external communications needed to address and ameliorate a crisis.</li> <li>• Mobilizes crisis teams in actual crisis; keeps executive management advised of status.</li> <li>• Propagates lessons learned from observing and analyzing crises management in other organizations.</li> <li>• Negotiates contracts with stand-by or back-up production facilities.</li> </ul>
<b>Data Gathering and Reporting</b> (Extensive)	<ul style="list-style-type: none"> <li>• Oversees multiple data-gathering and analysis initiatives.</li> <li>• Analyzes complex reports as revealed by the data.</li> <li>• Teaches others the calculations necessary to capture data and develop more complex reports.</li> <li>• Prepares cost-benefit analyses of alternative approaches.</li> <li>• Develops criteria for selecting data gathering and reporting tools and techniques for various projects.</li> <li>• Reviews and verifies data and reports for accuracy.</li> </ul>
<b>Training Delivery (Extensive)</b>	<ul style="list-style-type: none"> <li>• Coordinates the delivery of training sessions and their associated activities.</li> <li>• Monitors the progress of training session delivery to ensure training schedules are followed.</li> <li>• Coaches junior colleagues in choosing proper delivery methods for complicated training situations.</li> <li>• Evaluates the benefits and drawbacks of each delivery mechanism for various training programs.</li> <li>• Evaluates the quality of training delivered throughout the organization.</li> <li>• Collaborates with other functions to adjust training delivery in light of practical requirements.</li> </ul>

<b>Decision Making and Critical Thinking (Extensive)</b>	<ul style="list-style-type: none"> <li>• Uses effective decision-making approaches such as consultative, command, or consensus.</li> <li>• Differentiates assumptions, perspectives, and historical frameworks.</li> <li>• Leverages experience in analyzing relevant data and assessing implications of alternatives.</li> <li>• Identifies decision options and points and predicts their potential impact.</li> <li>• Evaluates past decisions for insights to improve decision-making process.</li> <li>• Makes sure assumptions and data are objectively analyzed in decisions.</li> </ul>
<b>Effective Communications (Extensive)</b>	<ul style="list-style-type: none"> <li>• Communicates well downward, upward, and outward.</li> <li>• Employs appropriate methods of persuasion when soliciting agreement.</li> <li>• Maintains focus on the topic at hand.</li> <li>• Adapts documents and presentations for the intended audience.</li> <li>• Reviews others' writing or presentations and provides feedback and coaching.</li> <li>• Demonstrates both empathy and assertiveness when communicating a need or defending a position.</li> </ul>
<b>Emergency Management (Expert/Leader)</b>	<ul style="list-style-type: none"> <li>• Has extensive experience with planning responses to industry-specific emergencies.</li> <li>• Identifies criteria for determining potential impact and implements emergency response procedures.</li> <li>• Explains action plans for plant-wide emergencies that can occur in the workplace.</li> <li>• Elaborates on potential environmental emergencies and how to address them.</li> <li>• Develops communication campaigns for employees, community and media.</li> <li>• Coordinates development of emergency programs and training of emergency response teams.</li> </ul>
<b>Health, Safety and Environment (HSE) Policy Compliance (Expert/Leader)</b>	<ul style="list-style-type: none"> <li>• Imbeds HSE policy objectives into the organization's strategy and mission.</li> <li>• Promotes a culture in which all employees share a commitment to HSE policy compliance.</li> <li>• Plays a leading role in promoting HSE policy compliance best practices across the industry.</li> <li>• Advises HSE authorities and policymakers on ways to prevent violations of HSE related policies or guidelines.</li> <li>• Counsels senior practitioners on the implications of HSE policy in related industries.</li> <li>• Leads discussions and answers complex questions regarding historical and future HSE legal dilemmas.</li> </ul>
<b>Influencing (Extensive)</b>	<ul style="list-style-type: none"> <li>• Presents persuasive arguments to decision makers.</li> <li>• Utilizes specific techniques for establishing rapport and gaining commitment.</li> <li>• Delivers well-received presentations of cost, benefits, risks, and other considerations.</li> <li>• Determines the decision-making style of the individual or group being influenced.</li> <li>• Achieves influencing impact even when holding a position contrary to the majority.</li> <li>• Discards examples of persuasive arguments lacking substance or impact.</li> </ul>
<b>Knowledge of Organization (Extensive)</b>	<ul style="list-style-type: none"> <li>• Describes functions, key responsibilities, and practices of multiple departments or units.</li> <li>• Uses the formal procedures and structures for getting things done within the organization.</li> <li>• Makes effective use of the organizations unofficial structure and back channels.</li> <li>• Aligns own department's plans with enterprise mission and vision.</li> <li>• Promotes the rationale and organizing principles of organization's structure.</li> <li>• Coaches others on organization's philosophy, culture, and history.</li> </ul>

<b>Planning: Tactical, Strategic (Extensive)</b>	<ul style="list-style-type: none"> <li>• Develops, refines, and communicates tactical plans for own responsibilities.</li> <li>• Plans for allocation of resources in line with unit goals, technical and business objectives.</li> <li>• Provides the right level of detail as input for strategic plan development.</li> <li>• Demonstrates the value and necessity of linking tactical plans to overall strategic plan.</li> <li>• Ensures the planning process is integrated with the overall business plan.</li> <li>• Ensures attention to the detail and dependencies of existing departmental-level plans.</li> </ul>
<b>Risk Management (Extensive)</b>	<ul style="list-style-type: none"> <li>• Implements function-wide risk management processes and tools.</li> <li>• Relates risk assessment models and analysis tools and processes to own business.</li> <li>• Measures key benefits and drawbacks for specific risk management practices.</li> <li>• Establishes key business-specific risk management benchmarks.</li> <li>• Designs cross-functional risk management processes, tools, and audit mechanisms.</li> <li>• Debates the pros and cons of various risk management models.</li> </ul>
<b>Safety, Injury Prevention and Emergency Procedures (Expert/Leader)</b>	<ul style="list-style-type: none"> <li>• Deploys safety strategies in multiple and diverse environments.</li> <li>• Advocates the application of advanced facilities and equipment for injury prevention.</li> <li>• Leads in developing emergency warning mechanisms for safety and injury prevention.</li> <li>• Establishes industry standards for safety plans and emergency procedures.</li> <li>• Builds communication systems to negotiate safety and emergency protocols.</li> <li>• Elaborates on the historic background and future perspective of emergency/safety procedures.</li> </ul>

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 Master's degree in a scientific field or, Emergency Management, or related field or an equivalent combination of education and experience is required.
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Required Qualification	<ul style="list-style-type: none"> <li>• Demonstrate proficient experience within an environmental and clinical public health lab setting.</li> <li>• Awareness of clinical and environmental chemistry practices.</li> <li>• Demonstrate excellent communication, interpersonal, and relationship management skills.</li> <li>• Demonstrate professional project management experience.</li> <li>• Demonstration of experience in leading teams.</li> <li>• Experience with planning, designing, and/or delivering training or educational programming, to support community education and outreach.</li> <li>• Experience performing analytical chemistry testing, preferably with LC-MS/MS and GC-MS instrumentation.</li> <li>• Experience with laboratory protocols for Environmental Health and Safety and Chemical Hygiene.</li> <li>• Possession of a valid state or commercial driver's license, and the ability to meet University Fleet Safety Standards.</li> </ul>
Highly Desirable Qualification	<ul style="list-style-type: none"> <li>• Knowledge or experience with incident command and national incident management systems is highly desirable.</li> <li>• Experience with High Resolution Mass Spectrometry and the identification of unknowns.</li> </ul>
Desirable Qualification	<ul style="list-style-type: none"> <li>• Experience in drills and exercises, preparation and monitoring of grants, laboratory biosafety and biosecurity and creation and implementation of new initiatives.</li> <li>• Familiarity with Microsoft Office, LIS, and preparation of fiscal and operational reports is desirable.</li> </ul>

See requisition # 23004621 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, 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.