Chemical and biological hazards pose safety and health risks to workers across many work settings such as laboratories, maintenance, and manufacturing. 46,000 American workers experienced non-fatal workplace injuries or illnesses resulting from exposure to harmful substances or environments in 2014, while 390 lost their lives.*

Emerging pathogens, new chemicals, and other hazards demand enhanced risk assessment and effective communication of occupational and public health information. Risk assessment and communication are critical for ensuring appropriate and effective prevention strategies for protecting worker health and safety. A proper risk assessment for all potentially hazardous agents—whether biological, chemical, radioactive or physical—must be conducted before establishing protocols, implementing controls, and communicating a mitigation plan. Regular, systematic review of work processes and tasks can protect workers and reduce risks.

This course is designed to give participants a step-by-step approach to assess biological, chemical, and physical risks in the workplace. Practitioners at all levels of an organization will gain essential knowledge and tools to prepare for hazards in the workplace, meet goals for injury and illness reduction, and effectively ensure the safety and health of their employees and co-workers.


INTENDED AUDIENCE
Managers, supervisors, laboratory personnel, industrial hygienists, environmental health and safety directors, health care professionals, veterinary workers, animal care professionals, maintenance workers, manufacturing professionals, professionals with PPE requirements in their workplace, safety committee members, risk managers, Ebola treatment and assessment centers, and other health and safety professionals.
AGENDA

8:00–8:15am  Welcome from the Course Director
Steve LaCroix, MS, CBSP

8:15–9:00  Keynote Address—Defining Management Commitment and Concern for Employee Safety
James Gibson, PhD, MPH, REHS

9:00–9:45  Overview of the Importance of Risk-based Methods
Elaine Faustman, PhD

9:45–10:15  Emerging Regulatory Requirements
John Stebbins, CSP, CIH

10:15–10:30  Break

10:30–11:00  Identification of Hazards: Biological, Chemical, and Physical
Jim Denovan, PhD

11:00–11:30  Estimating and Prioritizing Risks
Steve LaCroix, MS, CBSP

11:30–12:15pm  Conducting a Job Hazard Analysis
Steve LaCroix, MS, CBSP

12:15–1:00  Lunch

Afternoon Workshops: Participants will be led through table-top exercises to examine current risk assessment practices. Our expert instructors will cover strategies for assessing and reducing risks among a variety of workplace processes that are typical in all industries, including healthcare, biotechnology, manufacturing, and maintenance. These workshops will include the basic steps of risk assessment, risk reduction plans, waste management, and risk communication. New tools for reviewing data, compiling mitigation options, and selecting appropriate protocols to prevent worker exposures to hazards will be provided to help participants support their organizations' safety objectives.

1:00–2:30  Workshop 1: Case Studies to Assess, Prioritize, and Control Biological Agents
Karen Kuter; Scott Meschke, PhD, MS, JD; Don Wang, MPH

2:30–2:45  Break

2:45–4:15  Workshop 2: Case Studies to Assess Prioritize, and Control Chemical Agents
Denise Bender, MSPH; Elaine Faustman, PhD; Jim Denovan, PhD

4:15–5:00  Strategies for Maintaining Effective Risk Assessment Practices
Denise Bender, MSPH

5:00–5:15  Wrap Up and Evaluation
COURSE OBJECTIVES

Participants will be able to:
• Understand the difference between a hazard and a risk, and the primary steps in assessing them in the workplace
• Define sources, events, causes and consequences of workplace risks associated with chemical and biological agents
• Understand how to prioritize workplace risks by comparing their nature and severity to estimate potential impact and likelihood of harm
• Describe three examples of mitigation processes to eliminate or reduce workplace risks
• Identify three new resources or tools to increase competency for responding to biological and chemical risks
• Determine ways to report and communicate the current state of risks and their management in the workplace
• Feel confident conducting an effective job hazard analysis

KEYNOTE SPEAKER

James Gibson, PhD, MPH, REHS
Assistant adjunct Professor, Environmental Health Sciences; Executive Director, Environmental Health and Safety, University of California Los Angeles

As the Executive Director of the Office of Environmental Health & Safety at UCLA, James Gibson leads a team of EH&S professionals charged with protecting the health and safety of the UCLA campus community that includes the University Park Campus and Health Sciences Campus. Dr. Gibson is the founder and a member of the Board of the UC Center for Laboratory Safety and served as the Center's first Executive Director. James received his MPH in Epidemiology from the Johns Hopkins University Bloomberg School of Public Health and his PhD in Environmental and Occupational Health from the University of Illinois, Chicago.
ASSESSING BIOLOGICAL AND CHEMICAL RISKS IN THE WORKPLACE: Practical Strategies & Tools

EXPERT INSTRUCTORS

Denise Bender, MSPH
Denise Bender Consulting

Jim Denovan, PhD
President, EIC Environmental Health and Safety

Elaine Faustman, PhD
Professor, Environmental and Occupational Health Sciences; Adjunct Professor, Daniel J. Evans School of Public Policy and Governance, University of Washington (UW)

James Gibson, PhD, MPH, REHS
Assistant Adjunct Professor, Environmental Health Sciences; Director, Environmental Health and Safety, University of California Los Angeles

Karen Kuter
Karen Kuter Consulting

Steve LaCroix, MS, CBSP
Environmental Health, Safety, and QA Manager, Washington State Department of Health

Scott Meschke, PhD, MS, JD
Professor, Environmental and Occupational Health Sciences; Adjunct Professor, Civil and Environmental Engineering, UW

John Stebbins, CSP, CIH
Industrial Hygiene Compliance Officer, DOSH, Washington State Department of Labor and Industries

Don Wang, MPH
Director, Environmental Health and Safety, Fred Hutchinson Cancer Research Center

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DEPARTMENT OF ENVIRONMENTAL AND OCCUPATIONAL HEALTH SCIENCES
University of Washington School of Public Health

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