



ACS ESSENTIALS OF LAB SAFETY FOR GENERAL CHEMISTRY



Prepare students to enter the chemistry lab.

ACS Essentials of Lab Safety for General Chemistry provides an authoritative, easily-adoptable resource for use across general chemistry courses at both two-year and four-year institutions. Developed in collaboration with leading subject matter experts, the efficient user-driven course provides a solid learning experience to integrate chemical safety in general chemistry labs.

Academic organizations have a responsibility to ensure students responsibly enter the science lab with clear understanding of lab safety protocols and responsibilities. Before they perform initial experiments in the lab, **ACS Essentials of Lab Safety for General Chemistry** exposes students to critical concepts across chemical safety. The course incorporates RAMP, the core principles of lab safety – recognize, assess, minimize, prepare – providing consistent, foundational learning to reduce risk and liability in the science lab. Specifically, the intuitive course underscores the concepts of risk assessment, appropriate laboratory practices, and personal responsibility for safety.





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Establish consistent lab safety standards across student population:

- Prioritize lab safety as a core competency across a wide range of learners.
- Ensure students responsibly enter the science lab with clear understanding of lab safety protocols.
- Introduce common language, concepts, and skills of safety to promote consistent understanding.
- Increase student awareness of the potential dangers present in the lab and how to assess and minimize the risks from these hazards.
- Alert students about common lab incidents.
- Eliminate the need and time for faculty and staff to source or develop lab safety resources.
- Seamlessly integrate highly credible lab safety resource into the undergraduate curriculum.
- Track and monitor student compliance and understanding through turnkey learning management system (LMS) integration.
- Provide Administration peace of mind that students are receiving a common high-quality level of safety training across the entire science curriculum.

Course Modules:

1. Academic Success and Safety

Understand the importance of a positive safety culture and the student's role to play.

2. RAMP Framework

The basics of risk assessment with the RAMP framework.

3. Communication Matters

The role of chemical labels and GHS pictograms in recognizing common chemical, health, and physical hazards present in undergraduate labs.

4. Best Practices to Minimize Risks

How to prepare for, conduct, and clean up after experiments to minimize risks.

5. Prepare for Emergencies: Spills, Cuts, Burns, and Fires

Understand how to prepare for and respond to common emergencies and unplanned incidents that can occur in the undergraduate teaching lab.

6. A Day in the Lab—Capstone Simulation (which functions as the assessment)

Apply the knowledge gained through a simulated exercise.

Course Delivery:

Integrates directly into your learning management system.

Subject Matter Experts:

Prof. Dominick Casadonte

Texas Tech University

Prof. Craig Merlic

UCLA

Prof. Weslene Tallmadge

Gannon University

Prof. Susan Wiediger

Southern Illinois University—
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Estimated Time to Complete Course:

2 Hours



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