

# Lab Safety

Environmental Health & Safety

August 2025



#### OFFICE OF INTERNAL AUDITS

#### THE UNIVERSITY OF TEXAS AT AUSTIN

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# **Executive Summary**

# Lab Safety

Environmental Health & Safety Project Number: AUS25AS0009

## **Audit Objective**

The objective of this audit was to evaluate the effectiveness of Environmental Health & Safety's (EHS) lab safety compliance program and whether labs generally provide a safe environment.

#### Conclusion

EHS has effective lab inspection processes for identifying health and safety risks and effectively promotes safe lab environments. However, there are opportunities to enhance monitoring of required lab safety training and to follow up on lab inspection findings.

| Audit Observations <sup>1</sup> |            |                                  |
|---------------------------------|------------|----------------------------------|
| Recommendation                  | Risk Level | Estimated<br>Implementation Date |
| Safety Training Monitoring      | High       | September 2026                   |
| Lab Inspection Follow-up        | High       | April 2026                       |

## **Engagement Team**

Jason Boone, CFE, Auditor Autumn Gray, CIA, Assistant Director Kalie Rhodes, Auditor Anthony Orange, Auditor

<sup>&</sup>lt;sup>1</sup> Each observation has been ranked according to The University of Texas System Administration (UT System) Audit Risk Ranking guidelines. Please see the last page of the report for ranking definitions.

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## **Detailed Audit Results**

## **Observation #1 Safety Training Monitoring**

EHS has opportunities to enhance monitoring of required lab safety training<sup>2</sup>.

Principal Investigators (PIs) and lab supervisors are responsible for ensuring that lab personnel receive proper training. However, EHS does not regularly monitor for completion of this training by campus lab personnel. Rather,

#### **Notable Practices**

- Thorough lab inspection and reporting processes.
- Effective and collaborative working relationships with PIs and lab personnel.
- Effective outreach on the importance of lab safety.

they review and communicate incomplete training during periodic lab inspections but do not follow up with labs to verify completion of incomplete training after an inspection. Inadequate monitoring of training weakens the University's safety culture and can increase physical and health hazards, as well as legal and reputational risks.

Management's Corrective Action Plan: EHS is in the process of purchasing Campus Optics software to replace UT HERD. In preparation of the new software, EHS will evaluate its current training monitoring procedures and determine the feasibility of implementing a more formal and systematic process to track training completion across all labs. This would include developing automated alerts for overdue training, enhancing communication with Principal Investigators, and improving follow-up procedures after inspections.

Responsible Person: EHS Laboratory Safety Manager

Planned Implementation Date: September 30, 2026

## **Observation #2 Lab Inspection Follow-up**

EHS does not have an effective process for following up on safety observations identified during lab inspections. EHS effectively identifies safety issues during inspections and generally follows up on identified issues during a lab's next scheduled inspection<sup>3</sup>. However, certain inspection findings, such as safety equipment maintenance and infrastructure related corrections, require action by other University departments (e.g., Facilities Services) and ultimate responsibility for completion of corrective action rests with the respective departments. As a result, several labs we reviewed did not have up-to-date inspection records for safety equipment, as required by the Lab Safety Manual. Additionally, several labs have not updated chemical inventories in over six months. Insufficient follow-up and enforcement of corrective action increases the risk of safety incidents and potentially compromises emergency response.

<sup>&</sup>lt;sup>2</sup> In a sample of 10 labs, we identified 70 individuals who had at least one required training course outstanding, with 127 outstanding courses overall.

<sup>&</sup>lt;sup>3</sup> Depending on the lab type, future inspections can be scheduled six months to a year out.



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Management's Corrective Action Plan: EHS will continue to implement an escalation and follow-up process to ensure timely resolution of safety issues identified during lab inspections. This process will be published in the lab safety manual and the EHS website. EHS will take actions to increase outreach for this process. For clarity this process includes written notification and timelines, tiered escalation protocol, verification of corrective actions, centralized tracking, and accountability and continuous improvement.

Responsible Person: EHS Laboratory Safety Manager

Planned Implementation Date: April 30, 2026

## **Conclusion**

EHS has effective lab inspection processes for identifying health and safety risks and effectively promotes safe lab environments. However, there are opportunities to enhance monitoring of required lab safety training and to follow up on lab inspection findings.

**Table: Controls Assessment** 

| Audit Objective   | Controls Assessment                                 |
|---|---|
| Evaluate the effectiveness of EHS' lab safety compliance program and whether labs generally provide a safe environment. | Generally Effective with High-Risk<br>Opportunities |

## **Additional Risk Considerations**

EHS investigates lab safety incidents, documents key information, and recommends appropriate corrective actions. However, EHS does not consistently verify that lab staff implement these actions, increasing the risk of repeat incidents. EHS should continue its development of a formal incident reporting and follow-up process to better ensure corrective actions are completed. An effective process should include a tracking system to monitor and flag overdue corrective actions.

# **Background**

EHS helps UT Austin provide a safe and environmentally responsible work environment by providing training to the campus community, developing compliance programs, assisting with waste disposal, and responding timely to lab incidents. EHS also monitors regulatory compliance, advises departments, and communicates with external agencies.

As part of its efforts, EHS conducts regular inspections of approximately 3,000 campus lab spaces to provide reasonable assurance of workplace safety and environmental stewardship. The



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number of staff carrying out these inspections has remained constant, even as new lab spaces, spanning hundreds of thousands of square feet, and research activity have been added.

# Scope, Objectives, and Methodology

This audit was conducted in conformance with The Institute of Internal Auditors' Global Internal Audit Standards. Additionally, we conducted the audit in accordance with Generally Accepted Government Auditing Standards and meet the independence requirements for internal auditors. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions on our audit objectives.

The scope of this review includes current processes, procedures, and controls. Specific audit objectives and the methodology to achieve the objectives are outlined in the table below.

**Table: Objectives and Methodology** 

| Table: Objectives and Methodology   |  |  |
|---|--|--|
| Audit Objective   | Methodology  |  |
| Evaluate the effectiveness of EHS' lab safety compliance program and whether labs generally provide a safe environment. | <ul> <li>Interviewed EHS staff to understand lab safety procedures and related controls.</li> <li>Reviewed inspection timelines, training records, and lab inspection reports.</li> <li>Conducted walkthroughs of lab spaces to verify safety practices, chemical inventory, and compliance with protocols.</li> <li>Evaluated incident reports and follow-up procedures</li> <li>Engaged with lab personnel to understand and assess the overall lab safety culture.</li> </ul> |  |

#### Criteria

- UT Austin Handbook of Operating Procedures 8-1020, Environmental Health and Safety Policy
- EHS Research and Academic Lab Safety Manual



# **Observation Risk Ranking**

Audit observations are ranked according to the following definitions, consistent with UT System Audit Office guidance.

| Risk Level | Definition  |
|------------|---|
| Priority   | If not addressed immediately, has a high probability to directly impact achievement of a strategic or important operational objective of The University of Texas at Austin (UT Austin) or the UT System as a whole. |
| High       | Considered to have a medium to high probability of adverse effects to UT Austin either as a whole or to a significant college/school/unit level.  |
| Medium     | Considered to have a low to medium probability of adverse effects to UT Austin either as a whole or to a college/school/unit level.   |
| Low        | Considered to have minimal probability of adverse effects to UT Austin either as a whole or to a college/school/unit level.   |

In accordance with directives from UT System Board of Regents, Internal Audits will perform follow-up procedures to confirm that audit recommendations have been implemented.

# **Report Submission**

We appreciate the courtesies and cooperation extended throughout the audit.

Respectfully Submitted,

Aandy Setton

Sandy Jansen, CIA, CCSA, CRMA, Chief Audit Executive

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