



Research Safety Education and Training Requirements

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Purpose:

The University of Chicago is committed to providing comprehensive and relevant research safety education and training through the Office of Research Safety (ORS). In an effort to establish a culture of safety around academic research endeavors and to comply with legal requirements and ethical obligations, all personnel in laboratories must complete relevant safety training sessions. Through participation in training, research personnel gain the knowledge to perform their work safely. Training also communicates expectations and responsibilities. This policy identifies the different types of safety training, establishes that training requirements should be based on applicable hazards in a given research project, and explains the roles of ORS, individual departments, Principal Investigators, and research personnel.

Policy:

Research personnel have the right to know and understand the hazards in their work space and how to safely mitigate those hazards. All research personnel entering laboratories are required to have training appropriate to the hazards in the laboratory. This training must take place before laboratory work is started.

There are two categories of training needed to accomplish the required hazard identification, communication and mitigation. The first category is general research safety training provided by ORS. The second category of training is more specific to the hazards and controls present in the laboratory, and the Principal Investigator, supervisor, or someone knowledgeable of the hazards and the safe handling of the hazards should direct this training. This second category of training is referred to as Laboratory-specific Training. Both types of training are important and required to establish a strong safety culture in which communication is critical.

Principal Investigators (PIs) and supervisors being the responsible parties are required to complete the same ORS training as the personnel conducting research in their labs. In addition to this training, PIs will also be responsible for completing a training that is specific for PIs (to be created by ORS).

At a minimum for laboratory-specific training, all laboratory personnel are required to participate and document the completion of a laboratory-specific orientation. ORS will provide a guidance document with a recommended checklist that covers the required information such as emergency preparedness, location and use of emergency equipment, location of important documents, assignment of personal protective equipment, and hazardous waste collection and disposal. Additional laboratory-specific training may be required for high hazard operations conducted that are beyond the scope of general ORS training, some of which can be covered by Standard Operating Procedures (SOPs). Please contact ORS with questions regarding the development of relevant SOPs.

Faculty-led safety committees, including the Institutional Biosafety Committee (IBC), the Select Agent Institutional Biosafety Committee, the Institutional Animal Care and Use Committee (IACUC), and the Radiation Safety Committee (RSC) may establish training policies of their own that are above the minimum required as established by this policy. ORS will work with the different research-oriented safety committees and the administrators on campus to verify congruency and stringency of training policies.

For shared laboratory spaces, a risk assessment should be completed by ORS to determine if additional training requirements are needed based on the research activities of other adjacent laboratory groups.

Minors and visitors working in a research laboratory should complete the same training as employees or students working in such lab. The training requirement will be determined in correspondence to “University Policy 610- Minors in Educational Assignments” and “University Policy 210- Volunteer Services”, respectively.

Scope:

This policy applies to all faculty, staff, students, and visitors at the University of Chicago that conduct research with chemical, radiological, and/or biological hazards.

Definitions:

General Research Safety Training: Training courses designed by the Office of Research Safety to cover University policies, prudent practices, and the safe handling of hazards commonly found in laboratories.

Laboratory-specific Training: Training directed by the Principal Investigator, supervisor, or someone else knowledgeable of the hazards for laboratory operations outside those covered in general research safety training.

Principal Investigator (PI): A faculty member who is responsible for the research being conducted and the safety of the research personnel they supervise.

Full time, salaried academics with the titles Professor, Associate Professor, Assistant Professor, Instructor, Senior Scientist, Senior Research Associate, Research Scientist, or Research Associate with parenthetical rank of Assistant Professor, Associate Professor, or Professor are eligible to serve as principal investigator on proposals submitted to any outside funding agency in support of research, training, or other sponsored activities.

Supervisor (e.g. Clean room manager, Core facility director, Animal Resource Center administrator, etc.): An assigned staff or faculty member who is responsible for the research and safety in a University of Chicago facility.

Research Personnel: Any person (student, staff, post-doctoral scholar, or volunteer) who conducts research involving chemical, biological, and/or radiological hazards inside a laboratory at the University of Chicago.

Responsibilities:

The Office of Research Safety is responsible for:

1. Identifying institutional research safety training requirements
2. With support from Divisional Laboratory Safety Specialists (LSS), serving as a liaison between university safety committees and individual laboratories
3. With support from Divisional LSS, communicating the training requirements to departments, PIs, supervisors, and research personnel
4. Developing, deploying, and providing general training in chemical, biological, radiation, and laser safety
5. With support from Divisional LSS, assessing the required ORS general safety training modules for the laboratory
6. Providing online and/or in-person training modules
7. Documenting and tracking the completion of ORS training
8. Evaluating ORS training modules for effectiveness and requirements for refresher training
9. With support from Divisional LSS, assisting PIs and supervisors in identification of lab-specific training needs for laboratory hazards
10. Providing PIs with training materials, assistance, tools, and other resources for laboratory specific training

Principal Investigators and Supervisors are responsible for:

1. Working with ORS, LSS and corresponding safety committee(s) in identifying the training requirements for the personnel in the laboratory and the various hazards present
2. With support from LSS, ensuring that all staff and personnel have completed and are up to date with their general and laboratory specific training
3. Addressing, with the assistance of their department when applicable, any non-compliance of this training policy by personnel in their laboratory

4. Completing the same general laboratory safety training as their personnel and an additional module specific for PIs
5. Completing refresher training on time
6. With consultative support from the ORS and LSS, conducting or assigning knowledgeable personnel to conduct other laboratory-specific training
7. With support from the ORS and LSS, completing a laboratory-specific orientation with all research personnel
8. With consultative support from the ORS and LSS, maintaining documentation of laboratory-specific training or assigning this responsibility to a designee

Departments are responsible for:

1. Ensuring compliance with this training policy by all of their personnel
2. Maintaining department-specific training requirements that at minimum meet this policy
3. Assisting PIs with their fulfillment of laboratory-specific training
4. Addressing any non-compliance of this training policy by personnel in their department

Division Deans are responsible for:

1. Working with LSS and ORS staff to ensure compliance with this training policy by all research personnel within their given division.
2. Working with Department Chairs and PIs to determine appropriate disciplinary actions for PIs who do not fulfill their obligations regarding compliance with this training policy.

Research Personnel are responsible for:

1. Attending and participating in all required training
2. Completing refresher training on time
3. Following instructions provided during the training
4. Contacting PI, supervisor, ORS, or LSS when new hazards are introduced or identified in the lab

Policy Implementation:

Upon approval and adaptation of this policy by the Research Safety Policy Council, the Office of Research Safety will first review and assess the effectiveness of the current training modules. After the review and possible updates or development of additional training is completed, the Office of Research Safety will notify the intended training audience, PIs, departments, and various safety committees on campus.

To clearly communicate expectations, the Office of Research Safety will produce a guidance document clearly listing available training modules and the hazards for which they will be

required. The Office of Research Safety will also publish a Lab-Specific Orientation Checklist and additional documents to support laboratory-specific training.

After the announcement, compliance with general safety training requirements will be tracked in Combined Access Training Tracking (CATTS), AURA IBC or some other learning management system. With assistance from the Divisional LSS the PI or designee will be responsible for the maintenance of the laboratory-specific training records. The Office of Research Safety will verify completion of the required trainings during their inspections, which include but are not limited to the annual laboratory safety inspection, a biosafety inspection triggered by the submission of an Institutional Biosafety Committee protocol, a semi-annual radiation audit, and an annual laser inspection. Although inspections will be the major initiator of training compliance verification, this policy does not restrict verification to only ORS or only during an inspection. Departments, PIs, and supervisors are strongly encouraged to maintain records and verify their personnel's training compliance.

ORS Class Offerings:

While ORS provides in-person training sessions as well as online access for most training courses, the preference is for in-person training to facilitate discussion and interaction between researchers and ORS staff. It is strongly encouraged that researchers new to the University and personnel new to the laboratory research environment attend the in-person trainings. These course offerings may be modified by ORS upon evaluation of campus needs and effectiveness. Current offerings include but not limited to:

1. Recombinant DNA at BSL-1
2. Recombinant DNA at BSL-2
3. Bloodborne pathogens for Biomedical Researchers
4. Biological toxins
5. Viral Vectors
6. Comprehensive Biosafety Training covering #2, #3, and #5
7. Radiation Safety Awareness
8. Radioactive Material User (In person required for initial training)
9. Radioactive Material Laboratory Designee (online by request)
10. Irradiator Operator and Security (In person only)
11. X-ray safety awareness
12. Laser safety
13. Chemical Hygiene Plan

Required Laboratory-Specific Training:

Laboratory-specific training is a crucial part of the education of research personnel on the hazards of their work. While ORS courses cover the general safety requirements, the Principal Investigator, supervisor, or other knowledgeable lab member can train the research personnel

in high hazard operations beyond the scope of ORS general trainings. LSS will assist in determining appropriate laboratory-specific training. Required lab-specific training includes:

1. Laboratory-specific Orientation
2. Standard Operating Procedures (if applicable)
3. IBC Protocols and Agent Profile Forms (if applicable)
4. IACUC Protocols (if applicable)

Other training requirements:

Other training requirements may be applicable depending on the work being done and your appointment with the university. For example, Environmental Health and Safety requires all employees to complete Fire Safety and Evacuation annually.

Discipline:

For research personnel, including the principal investigator, who are determined to be out of compliance with the ORS safety training requirements, the researcher and their PI will be notified and will be given 30 days to complete the required training. If the training is not completed within 30 days without sufficient cause, ORS will document the non-compliance with the Principal Investigator. If the training is not completed within 60 days without sufficient cause, ORS will document the non-compliance with the Principal Investigator and Department chair. If the training is not completed within 90 days without sufficient cause, ORS will document the non-compliance with the Principal Investigator, the Department Chair and the Dean. The Dean will then be accountable for determining appropriate disciplinary actions.

Contacts:

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