

## **Safety Policy of the UVA Department of Materials Science and Engineering**

### **SCOPE**

This Policy sets forth the Department of Materials Science and Engineering (MSE) Safety commitment, defines roles and responsibilities, and outlines the major elements of policy deployment.

### **PURPOSE AND OVERVIEW**

The Department of Materials Science and Engineering is committed to protecting the health and safety of our students, faculty and staff, our research partners that visit our labs, as well as the University and community where we operate. The Department of Materials Science and Engineering is committed to educating students and developing an exemplary safety culture that prepares students to excel in companies with modern safety cultures. This document is meant to complement the MSE Department Safety Handbook, which focuses on specific department standard operating procedures.

### **OVERVIEW OF ROLES AND RESPONSIBILITIES**

#### Department Leadership: Chair, AOC:

- Staff the safety committee, approve the safety committee charter and receive regular feedback on the safety committee activities
- Conduct selected lab safety audits with faculty and staff support

#### Safety Committee:

The committee consists of Faculty, Staff and Students appointed by Department leadership. The committee will:

- Develop, distribute and update the safety handbook
- Serve as a resource to any MSE personnel
- Provide continuing education to the department
- Collect accident and near miss “after action reviews” and share learning across the department
- Report issues to Department Leadership
- Engage with other department safety committees and/or external safety resources for best practice sharing.

The roles and responsibilities of Faculty/PI, GTA, Researcher, and Students are divided into instructional and research categories.

**Revised: January 11, 2024**

## **INSTRUCTIONAL:**

### Faculty/ Instructor

- Know the details of the experiments to be completed in the course including all potential hazards, and communicate the hazards to GTA/students
- When developing new experiments for lab courses, complete a hazard assessment so that safe procedures may be developed
- Ensure that Graduate Teaching Assistants are properly trained on how to perform the experiments in a safe manner, and that they are ready to provide guidance to the classes that they will oversee
- Ensure that standard operating procedures are available for every process to be completed by the students, including safe stopping procedures
- Inform the students of safety training that is required before beginning the experiment
- Ensure that all students are aware of the safety policies of the instructional labs
- Ensure that all necessary personal protective equipment is being utilized
- Report accidents/near misses

### Graduate Teaching Assistant:

- Complete general training on safety in the instructional labs
- Complete training on how to perform the student experiments
- Perform the experiments assigned before the beginning of semester and be able to demonstrate understanding of the equipment and concepts
- Be a leader and example with regard to safety in the laboratory by practicing safe work habits, wearing the proper PPE, and instructing all students in safe behavior
- Before beginning an experiment with a new group of students, provide an overview of the potential hazards for the class
- Report unsafe conditions to the faculty/instructor and building manager
- Report accidents or near misses to the faculty/instructor manager
- Remove any students from the lab who are working unsafely

### Student

- Complete General Lab Safety training before beginning class
- Read the experiment documents and procedures before coming to class
- Ask questions if you do not understand or if unsure of how to proceed or if you should proceed
- Review hazards associated with the equipment and materials that will be used
- Wear the appropriate Personal Protective Equipment (PPE) as specified by the experiment procedures
- Report any unsafe behavior or conditions

## **RESEARCH:**

### Faculty / Principal Investigator:

Faculty that act as Principal Investigators (PIs) and laboratory supervisors have specific responsibilities to provide a work environment that has properly identified and managed environmental health and safety hazards for those supervised. PI/lab supervisor responsibilities include:

- Lead by example regarding establishing a safety mindset for the research group.
- Implement UVA safety policies in laboratories to ensure the safety and health of all laboratory personnel.
- Provide information about relevant environmental, health, and safety rules, regulations, standards, or practices.
- Perform hazard assessment and develop safe work practices and standard operating procedures including safe stopping procedures.
- Ensure that required safety-related equipment and personal protective devices are provided, maintained, and used.
- Provide or arrange for environmental health and safety training and education as needed.
- Take prompt action when unsafe acts or hazardous conditions are reported or noted.
- Promptly investigate and report all on-the-job accidents, near misses and/or job-related health problems.

### Post-Doctoral Researcher, Staff Research Scientists:

Post Docs, research scientists are responsible for complying with all environmental health and safety regulations, standards and guidelines. Each individual accepts personal responsibility for ensuring their own safety and health and accepts that they have a duty to protect the safety and health of other members of the community. Responsibilities of researchers include:

- Partner with the PI and lead by example regarding safety mindset for the group
- Coach students through their tenure in the group, pass along some leadership responsibility to the senior personnel
- Follow all policies and regulations as outlined in the MSE Department Safety Handbook, laboratory specific policies, the UVA EHS Policies and other applicable documents
- Wear and use required personal protective equipment as specified by their supervisor and university policies
- Refrain from operating any equipment that has the potential to harm personnel or property unless they have proper instruction, training and authorization
- Report unsafe acts or hazardous conditions to the supervisor
- Attend and understand prescribed environmental health and safety training and education
- Report all on-the-job accidents and near-misses to the supervisor

### Graduate Students

- Partner with the Postdoc and/or PI regarding establishing a proactive safety mindset for the group, develop into safety leader during tenure in MSE.
- Follow all policies and regulations as outlined in the MSE Department Safety Handbook, laboratory specific policies, the UVA EHS Policies and other applicable documents.
- Wear and use required personal protective equipment as specified by their supervisor and university policies.
- Refrain from operating any equipment that has the potential to harm personnel or property unless they have proper instruction, training and authorization.
- Report unsafe acts or hazardous conditions to the supervisor.
- Attend and understand prescribed environmental health and safety training and education.
- Report all on-the-job accidents and near-misses to the supervisor.

### Undergraduate Students

- Follow all policies and regulations as outlined in the MSE Department Safety Handbook, laboratory specific policies, the UVA EHS Policies and other applicable documents.
- Wear and use required personal protective equipment as specified by their supervisor and university policies.
- Refrain from operating any equipment that has the potential to harm personnel or property unless they have proper instruction, training and authorization.
- Report unsafe acts or hazardous conditions to the supervisor.
- Attend and understand prescribed environmental health and safety training and education.
- Report all on-the-job accidents and near-misses to the supervisor.

### EHS

EHS is the principal source of safety and health information, technical assistance, and advice for the UVA community. Most services are free-of-charge and available during regular business hours as well as off-hours in the event of a spill emergency. Regarding chemical laboratory safety, EHS:

- Maintains and administers the Chemical Hygiene Plan and related laboratory safety programs, including annual reviews and revisions,
- Designates a Chemical Hygiene / Safety Officer to administer these programs,
- Communicates with the UVA laboratory community about new hazards and any changes to safety policies or programs,
- Serves as a technical resource to the UVA laboratory community,