

<b>Title:</b> <b>Minors Working with Hazardous Materials in Research Laboratories Policy</b>	<b>Policy Category:</b> <b>Research</b>
<b>Issuing Authority:</b> <b>Enterprise Risk Management</b>	<b>Responsibility:</b> <b>Environmental Health &amp; Safety</b>
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### **Policy Statement/Background:**

Stony Brook University strives to promote safe science and to encourage research projects that involve youth from the community. This policy will provide guidelines to allow minors to safely work in a supervised research laboratory.

### **Scope**

This policy applies to Stony Brook University Research Laboratories. See definitions below for the precise identification of a research laboratory (or laboratory - for short) affected by this policy.

### **Policy:**

Principal Investigators, Faculty, Mentors and Supervisors have a responsibility to ensure the safety of all Minors in research laboratories. In order to provide a safe work environment, the following shall apply:

- No one under 14 years old will be permitted to work in a research laboratory.
- Minors must be supervised at all times while in a laboratory.
- All minors must obtain a parental consent form.

- Minors aged 14-15 years old are prohibited from working with:
  - Particularly Hazardous Substances
    - ✓ Acutely toxic
      - $LD_{50}$  oral  $\leq$  50 mg/kg;  $LD_{50}$  contact  $\leq$  200 mg/kg or  $LC_{50}$  inhalation  $\leq$  200 ppm.
    - ✓ Carcinogen
      - Any substance that is regulated by OSHA as a carcinogen, or is listed under the category "known to be carcinogens" in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) or is listed under Group 1 "carcinogenic to humans", Group 2A or 2B "reasonably anticipated to be carcinogens" by the International Agency for Research on Cancer Monographs (IARC). The current NTP and IARC lists can be found on the NIOSH web page [Occupational Cancer](#).
    - ✓ Reproductive hazard (mutagen or teratogen).
    - ✓ Other highly hazardous material that are highly flammable, reactive, pyrophoric or could cause serious injury or harm to people in the laboratory.
  - Biological material requiring BSL 2 or BSL 3 containment
    - ✓ Exception: Human cells, tissue, and blood can be used as long as it is not known to be infectious. Minor must receive biological safety training and use BSL 2 work practices and procedures for handling human material.
  - Radioactive material (RAM) without prior Radiation Safety Officer (RSO) authorization
    - ✓ If Minor is working in an Authorized Space, they must have Radiological Awareness training.
    - ✓ Minors may work with RAM with authorization:
      - PI must request in writing permission from RSO. Request must list specific radioactive material that the Minor will use.
      - Parent/Guardian must sign the specific RAM consent form.
      - Minor must complete the 4-hour Radiation Orientation prior to working with RAM.
      - Dosimetry may be required and is at the discretion of the RSO.

- X-ray generating equipment
  - ✓ Although a Minor is prohibited from directly operating X-ray generating equipment, they are permitted to observe the equipment being used by an Authorized User. RSO permission and calculation of the potential exposure is required before the Minor is allowed to observe the equipment in use.
- Nonhuman primates
- Minors over the age of 16 that have obtained parental consent, completed all required EH&S training and have demonstrated to the Faculty/Mentor a proficiency in techniques and an understanding of the hazards and risks of the material, are permitted to work with Particularly Hazardous Substances and BSL 2 Biological Material.
- Sponsoring Principal Investigators and Faculty/Mentors are responsible for:
  - Advising their Department Chair (or higher authority) that Minors will be working in the laboratory;
  - Ensuring that training is provided, enforcing safe work practices;
  - Providing appropriate protective equipment; and
  - Ensuring appropriate supervision of the Minors.
- Educational Programs which are teaching/group laboratories and not independent research are exempt from this Policy, but not other EH&S policies and requirements for handling and disposing of hazardous materials. The host school shall provide adequate adult supervision or the Educational Program must have adequate supervision.

## **Procedure**

### **A. Permission**

- 1.** Official notification of each Minor participating in research laboratory activities shall be forwarded by the Faculty/Mentor to the Department Chair or higher authority such as an Associate Dean for Research. This notification form shall include:
  - a)** List of hazardous materials that will be used by the Minor;
  - b)** Parental/Guardian Consent and Minor Responsibility Acceptance form signed by parent/guardian if a minor and information on Emergency Contacts;

- i. If the Minor is registered with an established campus program, the program coordinator is responsible for obtaining the signed forms.
  - ii. If the Minor is sponsored through their High School program, the Faculty Member is responsible for obtaining the signed forms.
  - iii. If the Minor has contacted the Faculty/Mentor directly and is not sponsored by any program, the Faculty/Mentor is responsible for obtaining the signed forms.
2. The Minor must obtain an SBU ID Badge and is required to have the badge with them at all times and may be asked to wear it.
3. The Faculty/Mentor must notify EH&S of the lab locations where Minors will be working and the person assigned as Supervisor.
4. This form will remain in effect for one year from the date it was signed.

## **B. Training**

1. Supervisor and Faculty/Mentor must complete all appropriate EH&S classes prior to supervising a Minor. At a minimum, this includes Chemical Safety, Biological Safety and Hazardous Waste classes.
2. Supervisor must complete the EH&S Lab Supervisory Safety Training (ELS 017). This is an annual requirement.
3. Minor must have EH&S training before beginning work with hazardous materials.
4. Supervisor or Faculty/Mentor must provide the Minor with hands-on training for all laboratory procedures that the Minor will use.

## **C. Laboratory Work**

1. Minors must have constant, direct supervision. The Supervisor must be in the lab while Minor is working. A Supervisor in an adjoining lab or office is acceptable. The Supervisor cannot be in an office that is not connected to the lab or is on a different floor.

- 2.** Minors will not be allowed access to laboratories without appropriate clothing. Appropriate clothing includes long pants and closed toed shoes. Shorts, sandals, etc., are prohibited in a laboratory.
- 3.** All Minors are required to use appropriate personal protective equipment (PPE) when working in a laboratory. The PPE must be provided by the Supervisor.
- 4.** The Supervisor or Faculty/Mentor must have written laboratory Standard Operating Procedures (SOPs) or Protocols which include specific safety requirements available before Minor begins work. Attached SOP templates can be used.
- 5.** Minors and Parent/Guardian must sign Agreement form that the student has received EH&S training, has access to PPE & been informed on when to wear it and understand disciplinary steps if violating PPE or supervisory rules. The signed copy must be returned to the Supervisor/Mentor before the research laboratory work can begin.
- 6.** All accidents/injuries must be reported to EH&S within 5 days. The Student Accident/Injury form shall be used (available on the EH&S Minors in Research Labs web page). A copy of this form must be sent to EH&S.

#### **D. Discipline**

- 1.** Violations of this Policy by Faculty/Mentors or Supervisors may result in termination of Minor's authorization to work in the research laboratory or termination of Faculty/Mentor's or Supervisor's privilege to have Minors work in laboratories.
- 2.** Minors will be disciplined for the following: violating this Policy; violating supervision rules; failure to use appropriate Personal Protective equipment; or failure to wear appropriate clothing for laboratory work.
- 3.** Discipline for violation of this Policy shall depend upon the severity of the violation and can be in the form of a verbal warning, a written notice sent to the parent/guardian or expulsion/loss of lab privileges of Minor.

## **Definitions:**

**Educational Program:** organized education program sponsored by a local school/organization and approved by an SBU department. Students are accompanied by adults from the local school/organization or the Education Program provides adequate supervision.

**Minors:** students under 18 years old and not admitted as a Stony Brook University student.

**Qualified Supervisor:** an employee of SBU. The Supervisor, at a minimum, must be a graduate student working as an RA, TA or GA (or higher). This person must have received all EH&S required safety training.

**Research Laboratory:** an area where hazardous materials, such as chemicals, biological materials and radiological materials, are used. It is a workplace where relatively small quantities of hazardous chemicals are used on a non-production basis with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. Additional hazards, such as high voltage power supplies, high power lasers and other equipment or process hazards such as burning, crushing and falling that may also be present in laboratories. It is not an instructional, computer or academic laboratory.

**Supervision:** provide continual instruction and oversight of the Minor. The supervisor must be in the laboratory or an adjoining laboratory or office while the Minor is working in the research laboratory and have visual contact with the Minor. The Supervisor must not be responsible for more than 6 students in the lab at one time. This supervision is accomplished by:

- Educating Minors on safe laboratory techniques
- Communicating clear safety goals and methods of achievement
- Holding Minors accountable for all safety rules and practices
- Completing accident reports
- Keeping area safe from risks and hazards
- Providing leadership and direction

**Contact:**

Additional information about this policy is available here:

**Environmental Health and Safety**

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<https://ehs.stonybrook.edu/>

**Relevant Standards, Codes, Rules, Regulations, Statutes and Policies:**

- [EH&S Website, Minors in Research Labs](#)
- [EH&S Parental/Guardian Consent and Minor Responsibility Acceptance Form](#)
- [EH&S, Student Accident/Injury Form](#)
- [Human Resource Services, State \(non-faculty\) & Research Foundation Volunteer Guidelines](#)
- [Chemical Hygiene Plan](#)
- [Radiation Safety Guide](#)
- [EH&S Laboratory Training Course List](#)
- [Human Resource Services, Volunteering at Stony Brook University](#)
- [Stony Brook University Programs for High School Students](#)