NJIT Minors and Volunteers in Labs and Shops

Revised Guidelines 2023

In preparation for summer 2024, the NJIT EHS department has altered the requirements for hosting minors and volunteers in NJIT labs and shops. Beginning in the summer 2024 semester, NJIT EHS has adopted a tiered approach based on the type and amounts of hazardous materials present in the host laboratories - that is summarized below:

- Computational projects, non-lab, non-shop projects, no hazardous materials or processes
  - Color Code - **Green**
  - Streamlined EHS form with basic information
  - Generic EHS training
- Laboratory and shop projects with standard reagents and processes
  - Color Code **Yellow**
  - Standard EHS form – updated in 2023
  - Generic EHS training
  - Hands-on training provided by lab or shop
- Laboratories that have submitted high hazard protocols to EHS
  - Color Code – **Red**
  - Enhanced EHS form – updated in 2023
  - Generic EHS training
  - Hands-on training provided by lab or shop
  - Additional EHS training for high hazard laboratories
- The same guidelines and prohibitions remain in effect as in previous years, although more carefully enumerated.

NJIT is committed to providing a safe and healthy work environment for all members of the university community as well as visitors and members of the public.

Minors may be more susceptible to the health effects of certain toxic and hazardous agents; may be less aware of potential risks and hazards present in laboratories and shops; and may require heightened supervision and oversight.

Minors may only be allowed in NJIT laboratories and shops as part of an organized event, program, or tour. Minors may never be allowed in settings where research activities involving controlled substances and/or high hazard materials are being performed.

Principal Investigators, other faculty, and their designated staff shall adhere to the following guidelines for minors and volunteers working in their laboratory and shop facilities:

- The principal investigator (PI) must notify the department chair that minors or volunteers will be working in their lab or shop.
- Prospective minors and volunteers must complete an application that provides appropriate individual information (address, phone, etc.), emergency contact information, as well as any medical concerns.
- All faculty, departments, programs hosting minors must adhere to all provisions of the NJIT Minors on Campus Policy
  - (https://www5.njit.edu/policies/sites/policies/files/Minors%20on%20Campus%20Policy%20Signed%208%2015%2019.pdf)
  - found on the NJIT Catalog of Official University Policies, under Human Resources Policies.
- All applicants must complete the Risk Management waiver forms and provide proof of medical coverage.
- The minor or volunteer must attend training appropriate for the work activities they perform or that may be performed by others in their assigned laboratory or shop – typically, generic EHS training.
- PI, other faculty mentors, and their experienced research staff must provide in-lab or in-shop hands-on training specific to the work the minor or volunteer will be doing in the lab or shop.
- Locations where high-hazard materials are present will require additional training by EHS.
- Personal protective equipment (PPE) shall be provided by the department and worn by the minor or volunteer as directed by the laboratory or shop director(s), EHS Department, or other NJIT guidelines.

- Prohibitions for minors and volunteers working in NJIT laboratories or shops:
    - Minors shall never be permitted to work unsupervised in an NJIT laboratory or shop.
    - Minors shall only work in NJIT labs or shops during normal business hours when a full complement of NJIT administrative and support staff are present and available.
    - Minors shall be prohibited from the following work activities:
        - Handle or manipulate biological materials at Biological Safety Level 2 or higher, including
            - BL-2 microorganisms
            - human-derived materials
            - BL-2 recombinant materials and viral vectors
            - toxins of biological origin
        - Operate or work in laboratories with hazard class 3b or 4 open beam lasers
        - Handle or manipulate Select Agents (as defined by the CDC)
        - Handle or manipulate radioactive materials or ionizing radiation sources
        - Handle or manipulate Highly Hazardous Substances, including
            - Particularly Hazardous Substance (as defined by OSHA)
            - carcinogens and reproductive hazards
            - pyrophorics, explosives, and highly reactive materials
            - large quantities of flammable materials
            - acutely toxic compounds
            - or be potentially exposed to these materials handled by others in the laboratory
        - Perform research activities with live vertebrate laboratory animals.

Principal Investigators, other faculty, and their designated staff wishing to host and mentor minors or volunteers in their laboratory or shop must adhere to the criteria described above, complete the attached form, and submit for EHS approval PRIOR to project initiation. Additionally, appropriate Risk Waivers need to be completed and submitted as well as satisfying the requirements of the NJIT Minors on Campus Policy.

Green - Computational Project, Non-Lab or Non- Shop Project, No Hazardous Materials or Processes

Name of Principal Investigator or other faculty mentor:

Department: Department Chair:

Location of laboratory or shop where minor or volunteer is anticipated to work:

Name of Minor or Volunteer: Date of Birth:

Anticipated dates of work experience:

Title of project:

Brief project description:

List of any potentially hazardous materials (including chemical, biological, and radiological) that may be encountered by minor or volunteer during the conduct of the project:

List of laboratory or shop equipment that may be used by minor or volunteer during the conduct of the project:

List graduate student mentor, other faculty mentor, or staff mentor who may be responsible for supervising the minor or volunteer during this project:

Have arrangements been made for appropriate safety training (both classroom training and hands on training) prior to the minor or volunteer beginning their work experience? Please describe:

PI/Faculty acknowledgement of responsibility as described in these guidelines:

PI/Faculty Signature: Date:

EHS Approval: Date:

Yellow - Laboratory and shop projects with standard reagents and processes, host has not submitted hazardous material SOP or Registration Document to EHS or Research Office, no high hazard materials present in lab

Name of Principal Investigator or other faculty mentor:

Department: Department Chair:

Location of laboratory or shop where minor or volunteer is anticipated to work:

Name of Minor or Volunteer: Date of Birth:

Anticipated dates of work experience:

Title of project:

Brief project description:

List of any potentially hazardous materials (including chemical, biological, and radiological) that may be encountered by minor or volunteer during the conduct of the project:

List of laboratory or shop equipment that may be used by minor or volunteer during the conduct of the project:

List graduate student mentor, other faculty mentor, or staff mentor who may be responsible for supervising the minor or volunteer during this project:

Have arrangements been made for appropriate safety training (both classroom training and hands on training) prior to the minor or volunteer beginning their work experience? Please describe:

Please list personal protective equipment to be issued to the minor or volunteer for the duration of the project:

PI/Faculty acknowledgement of responsibility as described in these guidelines:

PI/Faculty Signature: Date:

EHS Approval: Date:

Red: Laboratories that have submitted high hazard protocols or Registration Documents to EHS or the Research Office, high hazard materials are present in the lab

Name of Principal Investigator or other faculty mentor:

Department: Department Chair:

Location of laboratory or shop where minor or volunteer is anticipated to work:

Name of Minor or Volunteer: Date of Birth:

Anticipated dates of work experience:

Title of project:

Brief project description:

Hazardous Materials:

- List of any potentially hazardous materials (including chemical, biological, and radiological) that may be handled or encountered by minors or volunteers during the conduct of the project:

- Has this lab or shop submitted a high-hazard SOP to NJIT EHS or a Registration Document for Biohazards to the NJIT IBC?

- List of any high hazard materials, biohazardous materials, toxins, or radiological materials that are used, stored, or disposed in this lab or shop location:

- Describe what measures will be put in place to ensure that minors or volunteers will not be present while high hazard materials are manipulated by others conducting graduate level research in the lab or shop:

- Describe what safeguards will be put in place to ensure that minors or volunteers do not inadvertently encounter high hazard materials while doing other work in the lab or shop:

Equipment or Processes:

- List of laboratory or shop equipment that may be used or encountered by minors or volunteers during the conduct of the project:

- List any hazardous equipment or processes that may be used by others in this lab or shop location:

- Describe what measures will be put in place to ensure that minors or volunteers will not be present while high hazard equipment or processes are used by others in the lab or shop:

- Describe what safeguards will be put in place to ensure that minors or volunteers do not inadvertently encounter high hazard equipment or processes while doing other work in the lab or shop:

Supervision:

- List faculty, staff, or graduate student mentors who may be responsible for supervising the minor or volunteer during this project:

- Will minors and volunteers be supervised at all times while working in the lab or shop?

- What is the ratio of supervisor(s) to student(s) throughout the course of the research internship? Please note that for laboratories or shops with high-hazard materials and/or procedures the recommended ratio is 1:1 with no more that 1:2 (supervisor to minor) allowed.

Training:

- Have arrangements been made for appropriate EHS safety training prior to the minor or volunteer beginning their work experience? Please describe:

- Describe the in-lab, in-shop, hands-on, protocol-specific training the minor or volunteer will receive prior to the minor or volunteer beginning their work experience:

- Are all the lab staff listed above as supervisors current on their required annual safety training appropriate for activities taking place in the laboratory or shop? Please note this may include general laboratory safety training, shop safety training, biological safety/BBP training, radiation safety training, and/or LASER safety training.

Hazard Control:

- List personal protective equipment (PPE) to be issued to the minor or volunteer for the duration of the project:

- List engineering controls (e.g., fume hood, biosafety cabinet, PCR hood, etc.) that will be used to contain hazardous materials in the lab or shop, especially those with potential respiratory impacts:

Hazard Communication:

- Have minors, volunteers, parents and guardians been made aware of all the potentially hazardous materials as well as high-hazard materials present in the laboratory of shop prior to signing appropriate risk waivers?

- Describe how signage and labeling will be used to alert minors and volunteers to all the potentially hazardous materials as well as high-hazard materials present in the laboratory or shop.

PI/Faculty acknowledgement of responsibility as described in these guidelines:

PI/Faculty Signature: Date:

EHS Approval: Date: