

Visitors and Minors in Labs & Shops

Responsible Administrator: Research Safety and EHS School Coordinators
Revised: January 2024

Summary: This section outlines the policy and procedures related to the Special Events Program that is administered through the Environmental Health and Safety (EHS) Department.

1.	Program Description	1
2.	Scope.....	1
3.	Definitions	1
4.	Responsibilities	2
5.	Program Components.....	3
6.	Reporting Requirements	6
7.	Appendices.....	6

Appendix A: Release of Liability and Hold harmless Agreement and Research Proposal form (only if the minor will be performing any continuous work or activity in the lab)

Appendix B: Rules for Minors in Lab and Shops

Appendix C: Potential Hazard Information sheet

Appendix D: Minors Research Proposal Registration Form

1. Program Description

The UC Irvine Visitors & Minors in Labs and Shops program establishes guidelines for ensuring visitors' safety while in potentially hazardous areas on campus. Program guidelines cover visitations ranging from passive tours to active research projects and note exceptions applicable to minors. Visitors and minors are not permitted in potentially hazardous work areas except as outlined below.

2. Scope

In the event that faculty, staff, or students invite a visitor or minor into the lab, there must be advanced notice approval from the supervisor. If approved, adequate steps must be taken to prevent injury or disruption to others at work. Minors below the age of 14 must be restricted from hazardous work areas, due to their developing immune/neurological systems and their general lack of hazard recognition ability.

3. Definitions

Biological Agents: Living organisms or products of living organisms such as viruses, bacteria, fungi, prions & parasites.

Biosafety Level (BSL) Containment Protocols: Biosafety Levels 1-4 as defined by the National Institutes for Health guidelines, describe containment practices for hazardous chemicals and dangerous materials, based on advice from the federal [Centers for Disease Control and Prevention](#). Containment strategy is linked to the type of facility, appropriate engineering controls, safe work practices, and use of personal protective equipment.

- Biosafety Level 1 containment is prescribed for agents that are not known to cause disease in healthy adult humans.
- Biosafety Level 2 containment is prescribed for agents linked to human disease, but the disease is rarely serious; treatment is often available.
- Biosafety Level 3 containment is prescribed for agents that are linked to serious or lethal human disease; treatment may be available.

Controlled Substances: Narcotic and non-narcotic substances that are regulated under the federal Controlled Substances Act and the California Uniform Controlled Substances Act including but not limited

to those substances listed in 21 CFR 1308.11-1308.15

Laboratory: Any part of a building used or intended to be used by the University for scientific or technical activities which may be hazardous; this includes teaching laboratories as well as research laboratories. The policy also covers off-campus facilities, on-and off-campus clinical facilities, and fieldwork locations where approved educational activities are conducted.

Minor: Anyone under the age of 18. (California Family Code §6500-6502).

Personal Protective Equipment (PPE): Items worn to minimize exposure to a variety of hazards. Examples of PPE include such items as lab coats, gloves, foot protection (steel-toed shoes), eye protection (safety glasses or goggles), protective hearing devices (earplugs, muffs), hard hats, respirators, fall protection harnesses, etc.

Potentially Hazardous Work Area: An area where hazardous substances (e.g. hazardous chemicals, biohazardous agents, radioisotopes) or physical hazards (e.g., radiation, lasers, moving machinery parts, extreme temperatures, electrical apparatus) are present.

Shop: A place where machinery and tools are used. “Shops” include but are not limited to engineering shops, art workshops, and other sites.

Visitor: Anyone who is not UC Irvine faculty, staff, or a registered student.

Vivarium: A facility where live animals or plants are housed.

4. Responsibilities

The Chancellor or Director or designee is responsible for implementing [UC Policy Minors in Laboratories and Shops](#) and location-specific procedures

Vice Chancellors, Deans, Directors, and Department Heads must assure that employees under their jurisdictions comply with this program.

Supervisors of hazardous work areas including Principal Investigators and Lab Managers must ensure all tenets of this policy are being followed for all visitors and minors. The University academic or staff employee who sponsors a non- student minor’s educational activity must certify adherence to this policy and local implementing procedures on the Minors Performing Research Registration Form.

The PI or supervisor must make an evaluation of each physical hazard present in the work environment (e.g., compressed gases, high voltage, extreme temperatures, excessive noise, lasers, etc.) the minor may encounter as part of their scheduled assignment in the laboratory and

- (1) Review the physical hazards with the minor,
- (2) Review safe operating procedures for the equipment with the minor,
- (3) Review emergency procedures for the equipment with the minor, and
- (4) Establish specific and explicit instructions for the scheduled assignment the minor is allowed to perform.

Human Resources Any policy covered UC employee who oversees minors must have a background check as part of the CANRA mandated reporter training conducted in accordance with University policy and local procedures. [Reporting Child Abuse and Neglect \(CANRA\)](#)

Noncompliance with the policy is handled in accordance with Personnel Policies for Staff Members (PPSM) policies 62-65 pertaining to disciplinary actions, Academic Personnel Manual (APM) policies 015-016 pertaining to the Faculty Code of Conduct and administration of discipline; APM 140 and 150

pertaining to Non-Senate Academic Appointees, or Collective Bargaining Agreement.

Environmental Health and Safety is available for consultation on hazard assessments and mitigation of anyone on campus.

Participant's Parent or Guardian Parent/guardian **must** sign campus required registration form, including appropriate waiver, release of liability and hold-harmless agreement.

Under Age 18- Participant The participant must undergo required training and complete campus required registration forms.

5. Program Components

Visitor Restrictions Based on Activity

Visitors are not permitted in potentially hazardous work areas unless they meet the following criteria:

Passing through a potentially hazardous area (e.g. to reach an office area):

- ☐ A University employee who is trained and knowledgeable of the area's potential hazards escorts the visitor directly to the destination.
- ☐ The visitor is protected from potential hazards as deemed appropriate by the area supervisor and is provided with and dons the necessary PPE.

Briefly touring the potentially hazardous work area (e.g., class tours, donor presentations, parent showing work area to minor etc.):

- ☐ Visitor completes an online **Waiver of Liability, Assumption of Risk, and Indemnity Agreement** for Voluntary Activity. Parent or legal Guardian must sign for minors.
- ☐ Completed online form **must** be maintained by the host department for three years or three years after a minor has turned eighteen.
- ☐ Visitor is personally accompanied **at all times** by University employee who is trained and knowledgeable of the area's potential hazards.
- ☐ The trained University employee ensures that visitor is NOT placed into a situation where the health and safety of self or others may be compromised.
- ☐ Visitor is provided and dons appropriate personal protective equipment (PPE).
- ☐ For group tours, a safety briefing is provided to the group prior to entry.

Participating in a university-sponsored function requiring more than intermittent presence in the work area (e.g., lab coursework, research, volunteering etc.):

- ☐ Visitor completes [New Lab Worker Site Specific Training Checklist](#) and all components including SOPs, waste management, emergency evacuation, etc.
- ☐ Visitor is under the direct supervision of a university employee at all times who is trained and knowledgeable of the hazards.
- ☐ Visitor shall be provided with UCINetID and [DUO](#) requirements per campus policy.
- ☐ All visitors shall be provided appropriate safety training through both UC Learning Center (UCLC) [UCINetID](#) and [DUO](#) are required) and work unit specific training by the supervisor. The minimum UCLC requirements are:
 - ☐ Laboratory Safety Fundamentals,
 - ☐ Hazardous Waste,
 - ☐ Hazardous Materials Incidents Emergency Procedures Training.

(Exception: Visitors staying **under two weeks** are exempt from UCLC training if individual is **always** under direct supervision).

- ☐ Visitor is provided appropriate PPE and complies with UCOP PPE policy including long pants and closed-toe shoes. It is UC Irvine policy that anyone working in a location that has been assigned as a laboratory or technical area where the use or storage of

hazardous materials occurs or where equipment may present a physical or chemical hazard shall be invited by their supervisor to join the lab's Laboratory Hazard Assessment Tool (LHAT). Once you are invited by the supervisor, log into [LHAT](#) at with active UCINetID.

- ☐ Department Chair approval required for exceptions to this policy.

Minors in Labs and Shops

- A. Minor children of laboratory personnel are not permitted in laboratories or shops except under one of the following conditions:
- In accordance with requirements of Section C below, or
 - Laboratory/technical areas which have been designated and posted as free of physical or chemical hazards, or
 - As part of a campus/department sponsored event, or
 - For the purpose of escorting a minor child to/from an enclosed office/breakroom located within a laboratory or shop.
- B. Minors are **never** permitted in any setting where research involving controlled substances is being performed, even if they are enrolled students. Persons under age 18 are not permitted in University of California vivaria unless their participation has been reviewed and approved by the campus Institutional Animal Care and Use Committee (IACUC) and the responsible vivarium facility manager based upon criteria established by the campus.
- C. Minors between the ages of 14 and 18 are allowed in laboratory settings only when:
- They are students enrolled in courses listed in a campus course catalog or part of an approved and supervised tour, or
 - **THEY HAVE WRITTEN UC WAIVER CONSENT FORM THEIR PARENT(S) OR GUARDIAN(S) and,**
 - They have received the appropriate University of California safety training and the campus has documented that training; and
 - They agree to strictly adhere to the campus or laboratory-specific requirements concerning Personal Protective Equipment (PPE); and,
 - They are at all times under the direct supervision of a qualified adult, a mandated reporter under California law, designated for this responsibility.
- D. Before their scheduled assignment in a laboratory begins, minors must be trained on specific hazards to which they may be exposed in the laboratory/shop, how to recognize those hazards, and how to protect themselves from those hazards. Minors must be trained on the contents of the laboratory-specific chemical hygiene plan and the standard operating procedures and emergency procedures applicable to their scheduled assignment. Additional training may be required for tasks that involve hazardous chemicals, biological agents, radioactive materials, research animals, and physical hazards. All training must be documented.
- E. Legal Restrictions Regarding Certain Chemicals, Biological Materials and Radiation:
Regulations prohibit minors from using certain chemical, biological, or radiological materials. There are also specific training requirements based on the materials a minor will be handling and/or exposed to. Restrictions on chemical, biological, and radiological materials are as follows:

Chemical Activity	Requirements
Prohibitions for Minors:	<p>Minors are prohibited from working with:</p> <ol style="list-style-type: none"> 1. Highly hazardous material- including any pyrophorics, water reactives, potentially explosives, flammables more than 4L and acutely toxic compounds (oral LD₅₀ LESS than or equal to 50 mg/kg and/or dermal LD₅₀ LESS than or equal to 200 mg/kg, and/or an inhalation LC₅₀ LESS than or equal to 2,000 mg/m³). 2. Cal-OSHA regulated carcinogens 3. International Agency for Research on cancer Group 1 or Group 2A carcinogens. 4. Controlled substances
Biological Agents	<p>Minors ages 14-16 may NEVER conduct work that may require BSL-2, BSL-3 containment. They may enter a BSL-1 and 2 combined area provided there is NO contact with BSL-2 work.</p> <p>Minors ages 16-18 may NEVER work with or around BSL-3 however they may enter BSL-2 areas with appropriate medical training and constant supervision.</p>
Radioactivity or radiation producing machines	Minors may not work with radioactive material or radiation-producing machines. Exceptions must be approved by the UC Irvine Radiation Safety Officer.
Physical Hazards	Hazardous equipment, heavy machinery, high voltages, elevated pressures/temperatures or heights must be avoided.

NOTE: Any hazardous work here requires approval by Department Chair or School Dean.

Minors and parents/ legal guardians must review and sign:

- ☐ Release of Liability and Hold harmless Agreement and Research Proposal form (only if the minor will be performing any continuous work or activity in the lab): [Appendix A](#) Release of Liability and Hold harmless Agreement and Research Proposal form
- ☐ Rules for Minors in Lab and Shops: [Appendix B](#)
- ☐ Potential Hazard Information sheet: [Appendix C](#)
- ☐ Minors Research Proposal Registration Form [Appendix D](#)
- ☐ UC Waiver of Liability, Assumption of Risk, and Indemnity Agreement FORM GW17 https://www.ucop.edu/risk-services/_files/general-waiver-2017%20v4.pdf

Principal investigators/supervisors are responsible for the following with each minor:

- ☐ Review all emergency procedures with the supervisor.
- ☐ Be assigned a supervisor who will review the [New Lab Worker Site Specific Training Checklist](#) and ensure that criteria have been met.
- ☐ Minors of lab personnel must follow all guidelines required of other minors.

Note: Principal investigators/supervisors should assume minors need considerable training to understand safety documents such Safety Data Sheets, Standard Operating Procedures etc.

Supervisors should perform all training necessary to bring the minor to a safety awareness level comparable to that of trained lab personnel.

6. Reporting Requirements

Any conflicts resulting from implementation of the program shall be brought to the attention of the appropriate supervisory personnel and, if necessary, referred to the appropriate Vice Chancellor, Dean, or Director who shall make a final decision.

7. References

<http://policy.ucop.edu/doc/3500602/MinorsLabsShops>
<http://policy.ucop.edu/doc/3500598/LabSafetyTraining>
<https://policy.ucop.edu/doc/4000603/CANRA>

8. Appendices:

Appendix A: Release of Liability and Hold harmless Agreement and Research Proposal form
(only if the minor will be performing any continuous work or activity in the lab)

Appendix B: Rules for Minors in Lab and Shops

Appendix C: Potential Hazard Information sheet

Appendix D: Minors Research Proposal Registration Form

Appendix A

Summary: Waivers serve as evidence that an informed decision was made to assume the risks involved in an activity. The signer agrees not to hold the University liable for injuries and losses that may arise out of the activity. Certain waivers have been approved for use by Office of the President, General Counsel. With the exception of filling in the appropriate blanks, waivers should not be modified without the specific approval of Risk Services.

In addition, certain activities may require a special UC waiver and individual risk assessment. If you are not certain as to what type of waiver is needed for your particular activity or event, please contact the UC Irvine Risk Services staff: [Christopher Richmond](#) Campus Risk Manager, [Chris Taylor](#) Snr. Loss Control Analyst or Richard Rycraw, Property & Liability Claims Specialist.

UC Irvine Risk Services strongly recommends the use of UC's DocuSign online waivers collection system to collect, execute and maintain waivers for the period of time required by law.

Minors **must** have an individual UC waiver signed by a parent or legal guardian before they enter a UCI Research lab. Risk Services will draft the online UC waiver for your specific set of circumstances.

Requirements:

University policy requires that the issuing department maintain the signed waivers for 3 years from the last date of the event. In the case of minors (under 18), waivers must be maintained for 2 years beyond the minor's 18th birthday. When working with a group of children of close ages, e.g., 5th graders, the waivers may be maintained as a group and discarded 2 years after all members of that group be expected to have reached age 18.

Questions re. Minors Supervision:

Please contact UC Irvine Risk Services staff:

- [Christopher Richmond](#) - Campus Risk Manager
- [Chris Taylor](#) - Snr. Loss Control Analyst
- Richard Rycraw - Property & Liability Claims Specialist.

Notice: University policies, procedures and applicable collective bargaining agreements shall supersede information in this document or elsewhere on this site.

Appendix B

RULES FOR VISITORS & MINORS IN LABORATORIES AND SHOPS

- ☐ **Never** participate on a scheduled assignment alone in any laboratory environment without direct, immediate adult supervision (if minor) from the sponsor or someone designated by the sponsor.
- ☐ Always complete and follow safety training specific to the hazards in the laboratory.
- ☐ Always wear the personal protective equipment (PPE) as directed and dispose of it appropriately. PPE includes goggles, gloves, laboratory coats/gowns, and other face/body protection as dictated by the hazard being worked with or around. Always remove PPE when leaving the work area.
- ☐ Always follow the instructions of the sponsor or laboratory supervisor.
- ☐ Always report any accident (regardless of severity) immediately to the sponsor or laboratory supervisor.
- ☐ Always keep your hands away from your face and wash them well with soap and water prior to leaving any laboratory area and after removing gloves.
- ☐ **Never** eat, drink, chew gum, apply lip balm, or touch contact lenses while in any laboratory environment.
- ☐ Always wear long pants that completely cover legs and closed-toe shoes while in any laboratory.
- ☐ Always wear clothing that reduces the amount of exposed skin.
- ☐ Always ask questions if you do not understand the safety requirements.

Printed Name of Visitor

Signature of Visitor

Signature of Parent/Legal Guardian if Minor

Printed Name of Parent/Legal Guardian

Appendix C

Visitors & Minors: Potential Hazards Information

This list may NOT cover all hazards; supervisors should ensure that all hazards have been thoroughly communicated and understood.

Type	Characteristics/potential hazards		Examples
Chemicals	Refined compound that may be in the form of a solid, liquid or gas. These may or may not be hazardous. Some compounds may have numerous hazard classifications (e.g. flammable, toxin & carcinogen)	Carcinogens: may cause cancer with long term exposure - usually many years in the future	Benzene
		Teratogens: known to affect the reproductive system of males /females & may cause birth defects in the developing fetus.	Alcohol, thalidomide, X-rays
		Neurotoxins: may affect the nervous system.	Ethidium bromide, snake venom
		Flammables: may burn or explode	Acetone, Xylene, Alcohol
		Reactives: may react explosively	Peroxides, acrylamide
		Corrosives: may cause tissue damage through inhalation or direct contact with eyes, skin, etc.	Acids & Bases
		Toxins: may cause illness or death on exposure.	Cyanide
Compressed Gases	Gases frequently housed in large & heavy high-pressure cylinders. The gas itself may be harmless, toxic, corrosive, flammable, oxidizing, cryogenic	Physical hazard: Explosion hazard upon rupture Asphyxiant hazard if gasses enter workplace & displace oxygen	Asphyxiant: nitrogen, helium, any other non-oxygen gas Flammable: hydrogen Toxic: ammonia Corrosive: Chlorine Oxidizing: Oxygen
Radiation / Radioactive Materials	High energy particles (alpha & beta) or photon (X-rays, gamma)	Tissue & Organ damage with high doses	Uranium, Phosphorus-32, Sodium-35, X-rays
Physical Hazards	Exposure to noise, machinery, heat, cold, etc.	Tissue damage, hearing loss	Scrapes, cuts Cold: liquid nitrogen Heat: burners
Lasers	Light Amplification by Stimulated Emission of Radiation	Eye damage and possible skin damage	Class IIIB and IV, and open beam laser operation

Biological Agents	Living organisms or products of living organisms such as viruses, bacteria, fungi, prions & parasites. Hazards from infection are organism dependent & may range from mild treatable to severe untreatable. Hazards are classified according to recommended containment protocol.	Biosafety Level 1 - No hazard Biosafety Level 2 - Mild to severe illness Biosafety Level 3 – Severe illness & possible death	Baker's yeast E. coli K12
Recombinant DNA	Genetically modified organisms.	Scant scientific knowledge as to effects once introduced to the human body.	Viral vectors such as Adeno & Adeno-associated viruses used to transfect or express genes.
Toxins – Microbial, Plant, Animal	Poisonous substances produced by plants, living organisms or animals.	Tissue & organ damage or death.	Plants – Ricin Animals – fish / Reptile venom Pathogens– Staphylococcus, Tetanus

Visitor's Name Printed: _____

Visitor's Signature: _____ Date: _____

Assigned Supervisor's Name: _____

Assigned Supervisor's Signature: _____ Date: _____

If Visitor is a minor, the following is required:

Parent/Legal Guardian Name Printed: _____

Parent/Legal Guardians Signature: _____ Date: _____

Appendix D

Minors Research Proposal Registration Form

Proposals are due to the Department Chair at least 2 weeks prior to the beginning of the project.

Principal Investigator/Sponsor Name _____ Department: _____

Phone: _____ Email: _____

Student/Minor Name: _____ Date of Birth: _____

<p>The nature of this project is (check one)</p> <p><input type="checkbox"/> Student Intern Volunteer</p> <p><input type="checkbox"/> Other (specify) _____</p> <p><input type="checkbox"/> Part of a University of California Sponsored Program (which program?) _____</p>	<p>Project Title: _____</p> <p>Project Start Date: _____ Project End Date: _____</p> <p>Project Description (attach separate sheet if necessary): _____</p> <p>Location: Bldg. _____ Room(s) _____</p>
---	--

Materials and Equipment to be Used Check and List all that apply:

Chemicals

- ☐ Flammable
- ☐ Reactive
- ☐ Carcinogenic
- ☐ Toxic
- ☐ Corrosive
- ☐ Irritant/ Sensitizer
- ☐ Oxidizer
- ☐ Cryogen
- ☐ Pharmaceuticals
- ☐ Gasses

Biological Material

- ☐ Recombinant DNA
- ☐ Bacteria
- ☐ Viruses
- ☐ Fungi
- ☐ Parasites
- ☐ Human Source Material
- ☐ Insects
- ☐ Plants
- ☐ Animals

Equipment

- ☐ Fume Hood
- ☐ Biosafety Cabinet
- ☐ Laminar Clean Bench
- ☐ Glovebox
- ☐ Autoclave
- ☐ Centrifuge
- ☐ Analytical Instruments
- ☐ Industrial Machinery
- ☐ Noise Producing Equip.
- ☐ Other Equipment _____

I AGREE TO SPONSOR (MINOR'S NAME) _____

AND BY MY SIGNATURE BELOW, AGREE THAT:

- I have read, understand, and will adhere to the "Minors in Laboratories and Shops" Policy. The potential hazard information signature sheet is attached.
- I will ensure that this Minor's Hazard Specific Safety Training is completed and documented.
- Personal protective equipment appropriate for, and specific to, laboratory hazards will be provided.
- This individual will be supervised at all times while in the laboratory and never left alone.
- My laboratory is in full compliance with all applicable University of California safety programs and regulations.
- I understand that my failure to adhere to the "Minors in Laboratories and Shops" Policy may result in my receiving corrective action or discipline, up to and including dismissal.

Printed Name of PI/Sponsor Date
Department Chair Approval (if required)

Signature of PI/Sponsor Date

Printed Name of Department Chair Date

Signature of Department Chair Date

Retain for 3 years

