

# UC Irvine Laboratory Site Safety Training Checklist

Prior to beginning work at any UCI Laboratory you must complete the following:

- Read and understand the contents of this Checklist
- Receive training on specific laboratory safety requirements and procedures for your laboratory
- Complete all steps required by this checklist and ensure that you and your PI have signed the document

## UC Learning Training Modules:

1. Go to <http://uclcl.uci.edu>, click "Login" and enter your UCInetID and password.
2. Click on "Learner" icon at the top of the page, click the "Campus" tab and then click on "Safety Training Self-Assessment" in the bottom blue bar.
3. Fill out questionnaire using the following information (PI /Lab Supervisor must tailor this section to the anticipated work you will perform in the laboratory:

The screenshot shows a web browser window titled "SAT Session - Windows Internet Explorer" displaying the "UC Learning Center UC Irvine Safety Training Self-Assessment" page. The page includes a navigation bar with "Home | Help | Logout" and a date of "October 28, 2013". The main content area contains a welcome message and a list of job categories with checkboxes for selection. The categories are:

- Academic
- Administrative/Clerical
- Arts/Theatre workers (Not for Teachers or Administrative)
- Building Facilities Manager
- Building/Construction/Renovation
- Carpenters/Shopworkers
- Child Care
- Construction Management
- CUE (Coalition of University Employees)
- Custodial/Housekeeping
- Facility Maintenance - General
- Facility Maintenance - INRF
- Facility Maintenance - Laboratory
- Field Researchers
- Food Service
- HVAC
- Laboratory Research (Chem, Rad, Bio)
- Mail/Stock Room
- Managerial
- Medical/Patient Care
- Plumber
- Police/Security
- Principal Investigator (Chem, Rad, Bio)
- Principal Investigator (Other)
- RA/HA - Residential/Housing Assistant
- Supervise Employees
- TA - Laboratory (Chem, Rad, Bio)
- TA - Non-Laboratory
- Technical
- Telecommunications Field Work
- Volunteers
- X - None of the work activities listed

The browser's address bar shows the URL <https://apps.adcom.uci.edu/sat/workDimension.htm>. The taskbar at the bottom shows the Start button, several application icons, and the current time of 3:20 PM.

#### 4. For activities and environments that describe your work :

The screenshot shows a Windows Internet Explorer browser window with the address bar displaying <https://apps.adcom.uci.edu/sat/workDimension.htm>. The browser tabs include "SAT Session", "UCI Biological Safety", "UC Lab Safety Documents", "UCI Environmental Health &...", "UCI School of Medicine, Dep...", "Chemistry", and "University of California, Irvine". The main content area displays a list of activities and environments, each with an unchecked checkbox. The list is organized into two columns. The first column includes: Aerial Lift Use, Animal Handler (ULAR), Asbestos, Blood/Tissue/Body Fluids (Human & Non-Human Primate), Bucket Truck Use, Compressed Gas Cylinder Handling and Use, Computer Use (Frequent), Confined Spaces (manholes, etc.) - Employees & Supervisors, Construction Site Work, Driving is a routine or essential function of job, Forklift Use, Formaldehyde, Fuel/Oil Storage (over 55 gallons), Hazardous Chemicals, Hazardous Waste - Chemicals IRVINE, High Noise (>85 dBA), High Voltage Electricity (>601 volts), Hot Environments, Human Subjects Research, Infectious Substances/Medical Waste, Ladders/Scaffolding, Landscaping, Groundskeeping, Lasers, Lead/Lead Paint, and Lifting - Frequent/Heavy/Bulky/Awkward. The second column includes: Lockout/Tagout, Motorized Cart Use, Nanosystems - Clean Rooms, Outdoor Work (> 1 hour/day), Painting Maintenance, Painting Theatre Set Design, Portable Power Tools, Potential Exposure to Wild Rodents in their natural environment, Prolonged/Repetitive Lab Activities (>30min/shift of pipetting, microscope, fumehood use, etc.), Radiation Producing Machines (Research), Radioactive Materials (Research), Respirator Use, Safety on Site (SOS) Representative, Select Agents, Sheet Metal Work, Ship/Pack Dry Ice, Ship/Pack Hazardous Materials, Shop Equipment, Trenching & Shoring, Viral Vectors, Welding Equipment - Employees & Supervisors, Willed Body Program, Working at Heights & Elevated Surfaces, and X - None of the work activities listed. The browser's status bar shows "Done" and the taskbar includes the Start button and several open applications, including "Laboratory Site Safety O..." and "SAT Session - Window...". The system clock in the bottom right corner shows 3:24 PM.

5. Click "submit" at the bottom.

6. Go back to the home page and click on "Required Activities" in the upper blue bar to view your required trainings. Register and complete required trainings.

Note: For the status of each assignment, "Attended" and "Acquired" means the task is up-to-date while "Assigned" or "In progress" means the task still needs to be completed.

7. Make sure to complete the following modules first:

- a. Laboratory Safety Fundamentals (online)
- b. Hazardous Waste (online)

8. You may have been assigned additional modules depending on your work (such as Bloodborne Pathogens, Viral Vectors or Privacy and Security Training-HIPAA). Make sure to complete these required modules as well.

**Work Unit Specific Training:** Your PI/Lab Supervisor or designated Safety Representative will cover the following topics with you.

**Initial Training Topics**

**Emergency Procedures**

- \_\_\_\_\_ **Fire alarm pull station:** Locations and activation instructions.
- \_\_\_\_\_ **Fire Extinguisher:** Location and activation instructions.
- \_\_\_\_\_ **Eye wash/safety showers:** Locations and activation instructions.
- \_\_\_\_\_ **First aid kits:** Locations and content review.
- \_\_\_\_\_ **Phone:** Locations and dialing of '911' instructions.
- \_\_\_\_\_ **Emergency Procedures Guide:** Flipchart locations and discussion of actions for each scenario listed.
- \_\_\_\_\_ **Shelter-in-Place:** Review of shelter-in-place lab securing procedures.
- \_\_\_\_\_ **Primary and Secondary Routes of Egress:** Walk of both pathways to Emergency Assembly Area and review of disabled employee evacuation procedures.
- \_\_\_\_\_ **Emergency Assembly Area:** Review of lab gathering point and evacuation procedures.
- \_\_\_\_\_ **Reverse 911:** Enroll in campus emergency alert system.

**Engineering Controls**

- \_\_\_\_\_ **Chemical fume hoods:** Demonstration of proper use and instruction on adjustable controls.
- \_\_\_\_\_ **Biological safety cabinets:** Demonstration of proper use and instruction on adjustable controls.
- \_\_\_\_\_ **Chemical storage locations:** Locations and segregation rules.
- \_\_\_\_\_ **Laboratory Ventilation:** Laboratory is slightly negative with respect to the hallway
- \_\_\_\_\_ **Other engineering controls (glove boxes, gas cabinets):** Demonstration of proper use and instruction on adjustable controls  
Describe:

**Administrative Controls**

- \_\_\_\_\_ **Laboratory Safety Manual (including Chemical Hygiene Plan):** Location and content description.
- \_\_\_\_\_ **SDS:** Demonstration of electronic access to Safety Data Sheet repository.
- \_\_\_\_\_ **Laboratory Standard Operating Procedures (SOPs):** Review of SOP locations, required approvals and signature of understanding for each SOP.
- \_\_\_\_\_ **Chemical Inventory:** Access and use of inventory system (Cibr-trac).
- \_\_\_\_\_ **Chemical Processes:** Identification of areas requiring specific SOPs.
- \_\_\_\_\_ **Reporting:** Safety Concerns, Near-Misses notification to Supervisor or PI.
- \_\_\_\_\_ **Hazard-Specific Safety Training:** Determine additional courses needed. Enroll

in courses.

**Authorizations:**

- Radiation Use Authorization-Submit a Radioisotope User Enrollment form
- Laser Use Authorization-
- Controlled Substances-Submit a Personnel Screening Data Sheet (PSDS)
- Animal Worker-
  - Attend Orientation to Animal research and obtain card key
  - Complete CITI Training
  - Complete the LAOHP medical screening questionnaire
- IBC protocol modification form-PI or SR to add your name to the protocol(s)

**Personal Protective Equipment**

\_\_\_\_\_ **Access and review the Laboratory Hazard Assessment Tool, complete training and obtain PPE via EH&S**

\_\_\_\_\_ **Lab Coat:**

Provide at no cost a fitted lab coat(s). Certain labs require flame resistant lab coats. (*Provide established instructions here*)

Type:  FR  Standard  Barrier

\_\_\_\_\_ **Eye protection:**

Provide at no cost a fitted pair(s) of safety glasses and/or safety goggles. Safety eyewear must be of the type and adjusted accordingly to be worn comfortably and stay securing in place. (*Provide established instructions here*)

Corrective Prescription Y/N Model: \_\_\_\_\_

\_\_\_\_\_ **Gloves:**

Location, knowledge to select correct type, and donning/doffing instructions.

\_\_\_\_\_ Other:

**Waste Disposal**

\_\_\_\_\_ **Hazardous Waste Accumulation Area:** Demonstrate: Location, proper labeling, proper storage requirements, and process to request pick-up.

**Other**

\_\_\_\_\_ Understands safety procedures for specific operations (e.g., UV light, laser, safe use of specialized equipment, high voltage equipment, confined space, etc.). (See SOS binder and sign off on all established SOPs as needed)

\_\_\_\_\_ EH&S Reproductive Health Program information

\_\_\_\_\_ Hazardous Lab equipment (autoclaves, cryostat, centrifuge, table saws)

\_\_\_\_\_ List here:

\_\_\_\_\_ **Other Topics:**

### Laboratory Worker Signature

I certify I have been provided with and understand the information in the Laboratory Site Safety Training Checklist. I understand I am responsible for adhering to all safety laws, rules, and regulations while working at UC Irvine

Print Your Name	Signature
PI Name and Signature	Date

### Nizkorodov Laboratory Specific Safety Requirements

**No individual is permitted to work in areas where chemicals are in use until the following document has been properly submitted.**

Students and researchers, after completing the Environmental Health & Safety (EH&S) required training, sign this document and file it in the SOS binder under Tab 3 (Hazard Assessment & Corrections Tool + Training Records).

1. Students and researchers must read, understand, and sign the Hazard Assessment Document found in the Safety on Site (SOS) binder located at the Nizkorodov laboratory SR's desk.
  - a. The Hazard Assessment is performed annually in the Nizkorodov lab.
2. The University of California, Irvine (UCI) requires researchers to take an online self-assessment through UC Learning Center (UCLC) located online at <http://www.uclc.uci.edu>, and then complete all indicated required training. For detailed instructions on how to log into UCLC, see [page 5 of this document](#).
3. The UCI Laboratory Safety and Chemical Hygiene Plan (CHP) can be accessed at <http://www.ehs.uci.edu/programs/lsg/TABLEofCONTENTS.pdf>. The CHP should be consulted prior to working with chemical substances and the students and researchers in the Nizkorodov laboratory must read and understand the following two sections of the Laboratory Safety Guidelines:
  - a. UCI Laboratory Safety Guidelines-Section 2, Chemical Hazards- Recognition, Evaluation and Control
  - b. UCI Laboratory Safety Guidelines-Section 3, Physical Hazards- Recognition, Evaluation, and Control
4. Material Data Safety Sheets (MSDS) can be viewed online at <http://www.ehs.uci.edu/msds.html>. They should be consulted every time prior to working with specific chemical substances.

5. Students and researchers in the Nizkorodov laboratory must read and understand the following Standard Operating Procedures (SOPs) that can be found on the UCI EHS Safety Training Resources webpage: [http://www.ehs.uci.edu/programs/sop\\_library/](http://www.ehs.uci.edu/programs/sop_library/)
  - a. Laser Safety
  
6. Students and researchers in the Nizkorodov laboratory must read and understand all of the Standard Operating Procedures (SOPs) relate to the types of experiments and instruments said person will utilize found on the Nizkorodov Group "Intranet" Webpage: <http://aerosol.chem.uci.edu/intranet/index.htm>
  - a. Students and researchers should discuss with Dr. Nizkorodov which SOPs listed are applicable to their specific research.
  
7. Students and researchers must attend a laboratory specific safety **orientation** performed by the SR. There is a separate file covering the orientation. Topics of this orientation should include:
  - location and proper use of safety equipment
  - emergency procedures including steps for personal injury, hazardous spills and evacuations
  - basic laboratory safety rules (see CHP, Safety Rules)
  - location, selection and when to wear Personal Protective Equipment (PPE)
  - location and methods for hazardous waste disposal
  - access and maintenance of hazardous material inventories
  - provisions for working in the lab alone
  - other hazards specific to the research group

I, \_\_\_\_\_, (Print Name) have read and understand the Nizkorodov Laboratory Specific Safety Requirements, and I have completed the required training or am scheduled to complete it before I start laboratory experiments.

\_\_\_\_\_  
Signature Date

\_\_\_\_\_  
PI Full Name Date

\_\_\_\_\_  
SOS Representative Signature Print Name Date

## Additional Nizkorodov-Specific Safety Requirements

1. Except when at one's desk or walking from the hall directly to the desk, safety glasses must be worn at all times when in the lab. For people with prescription glasses, sideshields must be worn at all times in the lab. Laboratory coats must be worn when in the vicinity of chemicals.
2. Flip-flops (or other open-toed shoes) are not permitted in the lab.
3. Shorts, open tops, and other clothing revealing large skin areas may not be worn in the lab (OK for office only work).
4. Always keep all doors to the dry and liquid chemical cabinets closed.
5. Latex, nitrile, etc. gloves cannot touch doorknobs, computer mice, or other items in clean areas. Chemically contaminated items (lab coats, bottles, TLC plates, NMR tubes, etc.) are not permitted in these areas either.
6. **Any procedure involving large amounts of chemicals, i.e., any reaction or procedure that is carried out in a 1 L flask or with 50 mmol of substrate in any vessel, cannot be performed when alone in the lab.**
7. Solvent bottles greater than 1 L (except water) cannot be left unattended on bench tops or on the floor. No chemical-containing bottle can be on the floor without secondary containment (attended or not).
8. 5 gallon solvent containers should never be purchased for this lab, except for: 1) water; 2) pump oil; 3) ethanol for chillers.
9. Hazardous operations should not be performed in locations where hazardous materials are stored in bulk (e.g. flame-drying glassware in the presence of organic solvents).
10. **No one should work with pyrophoric material and/or PHS compounds alone.** Prior to working with these types of substances, researchers should consult an appropriate operating procedure and a co-worker who is already familiar with the procedure.

## General Lab Rules that Everyone Needs to Follows

1. At the end of the day, if you are the last one in the lab or in your office:
  - a. Make sure all the lab and office doors are locked before you leave.
  - b. Turn off the lights in your office.
  - c. Makes sure the hood sashes are down and their lights are off.
  - d. Either turn off your computer or put it into standby/sleep mode.
  - e. Turn off your computer monitors.
2. When you use tools/scissors/etc. from the lab, please put them back in their correct location when you are done with them.
3. Save all packing slips on all packages containing chemical, equipment, etc. delivered to our lab and ordered through the Purchasing Office. Place packing slips in the clear file holder located in the wall next to the sink in the front of the lab.
4. For any *GENERAL* lab supplies that need to be ordered, we have a sign-up sheet on the cabinet next to the sink. If you notice that you are the last person to use one of the supplies (i.e. gloves, Kimwipes, etc.) then please put them on the order list so they can get here before we completely run out. (NOTE: this sheet is for general lab supplies only. If you need supplies that are specific to your experiment, then order them yourself.)
5. **For new chemicals that come in to the lab, whether they are ordered or bought at PS Stores:**
  - a. **If you ordered them through Purchasing:**
    - i. **MOST IMPORTANT: put the bar code sticker on the bottle**
    - ii. **Transfer the chemical from “Nizkorodov’s Received Items” and into our lab (385 or 350)**
  - b. **Register the chemical in the databases as described in the orientation.**
  - c. **When you use the chemical, write the date on the bottle of when it was first opened.**
6. For old chemicals/empty chemical bottles that are disposed of, enter the RN number in the worksheet maintained by the lab safety coordinator so that the chemical can be removed from the database.