

# University of California at Berkeley – Shop Safety Policy

## **SHOP SAFE-WORK POLICY, PROCEDURES AND PRACTICES**

**SHOP SAFE WORK POLICY:** It is the policy of UC Berkeley and any department that owns / manages a shop that:

- Only persons who are “Authorized” by a Shop Manager / Supervisor may work in restricted areas of a shop unescorted.
- A person becomes “Authorized” as indicated by need of their work duties, and approval from their immediate Supervisor, PI or Instructor **combined** with a Shop Manager’s agreement that they possess the training and qualifications for safe work in the shop. This is documented using Attachments 1 and 2 of the Shop Safety Program. Authorization is done for each and every shop. Authorized access to another shop is only given by that Shop Manager’s documented authorization.
- Shop Managers define and maintain a “Restricted Area” within their shop that only “Authorized Persons” may enter and work in unescorted.
- Shop Managers determine the appropriate safe-work training needs for their shop, and assure that all “Authorized Persons” in the shop have received the orientation and training to their shop.
- UCB has, and all Shops must support, a Stop Work Policy when unsafe work is witnessed. It is the responsibility of everyone to exercise this policy when observing unsafe work conditions or practices. If you see unsafe behavior or activities, don’t hesitate to use the Stop Work Policy and immediately speak up and stop unsafe work.
- UCB Shops comply with Cal/OSHA regulations, the California Electrical Code and other established safety standards by applying this and other EH&S Safe-work Programs / Policies as listed in the “[Typical Shop Hazards and their Controls](#)” section of the “UC Berkeley Shop Safety Program” on the [EH&S website](#).
- All electrically energized shop equipment is used in a safe manner as intended by the manufacturer and within the equipment’s Nationally Recognized Testing Laboratory (NRTL) listing.
- All shop personnel must resist “hurry-up” pressure and work methodically and safely. Take the time, and get the help needed to do a job the ‘safe way’.

### **SAFE WORK PROCEDURES: USE OF PERSONAL PROTECTIVE EQUIPMENT (PPE)**

When the use of PPE is required, PPE must be stocked and supplied by the Shop Manager to all “Authorized Personnel” and “visitors”. Selection is based upon hazards that are present, and must be worn by anyone when entering a “Restricted Area” as follows:

- Appropriate face and/or eye protection whenever powered equipment or flying / airborne particles or hazardous substances or injurious light sources are present.
- Hair-nets or caps when long or medium length hair, including facial hair, could get wrapped into rotating or rolling equipment, or could be exposed to flames or other such hazards.
- Hard hats or bump caps when someone is working over your head, head-banger obstructions exist, or when a Shop Manager / Supervisor requires them.
- Dust masks may be used by anyone at any time for airborne dust, but use of other respirators is determined by indoor-air-quality hazard assessment and are distributed to individual personnel through their enrollment in the UCB [EH&S Respiratory Protection Program](#).
- Gloves and other hand protection must be selected and worn based upon hazards. Use [EH&S’s Glove Selection Guideline](#) for ideas on what kinds of gloves should be worn based upon hazards.
- Full-cover shoes with non-slip soles and ankle support are required in all “Restricted Areas”. Safety boots, optionally with steel / composite toes, are required during the movement of heavy equipment and work materials, or the use of industrial lift equipment or cranes.

### **PERSONAL SAFETY and WORKING SOLO**

- Long and medium length hair, including facial hair, must be tied back and put into a bun or inserted under a shirt-collar, or put under a hair-net, when working near sparks, flames, or any rotating powered or other entangling equipment.
- Open-toed shoes, flip-flops, shorts, sandals, scarves and loose-fitting clothing ARE NEVER WORN in any shop’s “Restricted Area”.
- Shop access outside of supervised hours may be restricted to specific “Authorized Persons” based upon the Shop Manager’s discretion. This access is not granted for regular on-going work. Routine working solo outside of ‘supervised hours’ is strictly forbidden and will result in an immediate revocation of shop privileges.
- “Authorized Person(s)” may work solo in a Shop during ‘supervised hours’ when communications means and / or other arrangements are made with the Shop Manager / Supervisor to assure the person’s continuous safety and ability to communicate immediately with emergency responders prior to solo-work starting.

### **EQUIPMENT OPERATION**

The operation of any and all shop equipment requires prior training and approval by the Shop Manager / Supervisor. Only persons authorized by the Shop Manager / Supervisor and trained in the safe operation of the shop equipment are permitted to work in a shop and operate shop equipment. A signed “Authorization Form” certifies this level of qualification and must be on file with the Shop Manager / Supervisor. Failure to adhere to this requirement will result in a loss of shop-use privileges.

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## **SHOP SAFE-WORK PRACTICES:**

**COMPRESSED AIR:** Compressed air or other gases in excess of 10 pounds per square inch are never used to blow dirt, chips or dust from clothing while it is being worn, or from any surface as part of routine shop cleaning. Use suction devices or other cleaning methods instead.

**DRAIN DISPOSAL:** Absolutely no carcinogenic, hazardous or biohazard waste is to be poured down the shop drain due to the campus' wastewater discharge permit limitations. A waste is considered hazardous if it is flammable, corrosive, reactive, toxic or contains heavy metals. All [hazardous and chemical wastes](#) must be disposed of by EH&S. Failure to comply with East Bay Municipal Utility District (EBMUD) permit requirements for campus drain disposal could lead to substantial fines and restrictions on shop water / drain use. For more information see the EH&S [Campus Drain Disposal Guidelines](#).

**ELECTRICAL SAFETY:** All work on and development of electrical equipment must be conducted according to guidelines and compliance requirements set by UCB's [Electrical Safety Program](#). Work that must be done on energized electrical circuits must be done in accordance with the "Hot Work Permit" procedure detailed in this program. Otherwise, work on electrical equipment must be done verified de-energized and locked / tagged out by all persons working on the equipment.

**ENERGY ISOLATION – LOCK OUT TAG OUT:** Know and apply the [UCB Energy Isolation / Lock Out - Tag Out Program](#) to all facility and equipment locations in the following conditions:

- Where hazardous energy release could cause unexpected movement of equipment,
- Where unexpected flow of energy could cause injury or equipment damage,
- Whenever a machine-guard or interlock is removed or bypassed, or
- Whenever there is more than one energy supply to a machine, and the energy source cannot be simply 'unplugged' so that energy-control is exclusive to the person working on/with the equipment.

## **EQUIPMENT, FACILITY, MATERIAL HAZARDS AND EMERGENCY RESPONSE**

- Always consider electrical equipment or compressed gas equipment "energized" until positively proven otherwise.
- Learn and know how to shut down equipment in an emergency BEFORE there's an emergency.
- Design and plan for safety by looking for hazards and anticipating problems.
- Whenever possible de-energize the equipment before testing or working on it.
- Positively ensure all hazards are identified before blocking, blinding, bleeding or conducting lockout and tagout.
- Lock out and Tag out broken, mothballed or unsafe equipment until it can be repaired or permanently removed.
- Refer to the shop's [Hazard Communication "Orange Flip Chart"](#) and Material Safety Data Sheets (MSDS) to understand material / chemical hazards, emergency contact information, and emergency response procedures.

**FORKLIFTS / AERIAL LIFTS:** Only drivers / operators authorized by the Shop Manager / Supervisor and enrolled in the Campus Industrial Lift Truck Safety Program and/or Aerial Lift Safety Program who hold a current operator's license issued by the EH&S Program Manager are permitted to operate such vehicles.

**HAND TOOLS:** Only persons authorized by the Shop Manager / Supervisor and trained in the safe use of hand tools are permitted to use this equipment. Use hand tools and devices only as they were designed / intended to be used.

**HOUSEKEEPING:** The work and surrounding area in which you are working must be kept neat, clean and safe at all times. If you see a mess, spilled liquid or debris, whether you created it or not, take the time to clean it up.

**HYDRAULICS:** Only persons authorized by the Shop Manager / Supervisor and trained in the safe operation and/or development of hydraulic systems are permitted to assemble, qualify, and operate hydraulic equipment connected to any shop hydraulic system.

**JEWELRY:** Remove all jewelry before working in a "Restricted Area".

**OVERHEAD CRANES / HOISTS:** Only persons authorized by the Shop Manager / Supervisor and trained on the Campus Crane Safety Program and who are deemed a "Qualified Crane Operator" according to the requirements of the program are permitted to operate such equipment.

**WORK BRIEFING:** Participate in a safe work briefing with all personnel in the area before commencing any shop work. Assure you discuss planned work with the Shop Manager / Supervisor, or their designee, to identify any hazards or other hazardous conditions nearby due to work being done by others. Know the Shop's emergency procedures. Maintain the protection of covers, barriers and shielding of all electrical equipment, hot work, machine guards, chemical storage, etc. Never drill into a wall or floor slab without Shop Manager **and** Building Manager approval.

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**SHOP NAME:** \_\_\_\_\_

**LOCATION / DEPARTMENT:** \_\_\_\_\_

***I have read, had an opportunity to ask questions about, understand and been given a copy of UC Berkeley’s “Shop Safety Policy, Procedures and Practices”. I pledge to only conduct work according to the safe policy, procedures and practices outlined within the contents of the document. I understand that failure to follow policy, procedures and practices outlined within the document may result in immediate expulsion and possibly permanent revocation of privileges to work in the shop noted below. In addition, other disciplinary action may be brought by the department and/or UCB management for failure to follow these policy, procedures and practices.***

**Signature: X** \_\_\_\_\_  
**(Authorized Shop User)**

**Print name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature: X** \_\_\_\_\_  
**(Shop Supervisor / Manager)**

**Print name:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Instructions to the Shop Manager / Supervisor:** Please separate the 2-page policy / procedure / practices document and provide it as a ‘hand-out’ copy to every ‘authorized person’ who will be working in your shop. Have each person sign / date this third page of the policy / procedure / practices document and keep their signed page in your file as evidence of basic safety training / orientation to your shop. To save resources, it’s suggested pages 1 and 2 be printed front and back on one sheet of paper.

Provide additional training as you may determine is needed based upon assessment of your shop’s hazards, equipment and operations. Include a checklist of training subjects and materials covered as evidence of your training efforts.