

BRAE Laboratory Policies/Procedures

September 2018

Mission Statement: To create a safe, welcoming environment to all students working on school related projects in the BioResource and Agricultural Engineering Labs 1-7 in Building 08a.

GENERAL GUIDLINES

- Gary Weisenberger will be interim manager of the BRAE labs during the fall of 2018
- Please make sure Gary or one of the lab techs is aware of any scheduled activities in the labs at least 3 days prior to the activity.
- Any weekend or after hours work by clubs must be pre-approved by Department Head and have a lab tech scheduled to oversee your work.
- It does not matter who you are (faculty, staff, student shop techs) you should not be working in the shops alone.
- Furthermore working on private vehicles in our shops is not allowed.
- If you see a problem report it. For example, water on the floor or air compressor running continuously in Lab 4 – contact Dr. Schwartz.
- If you are in Labs 6 and 7 you need to have passed the Lab 6/7 Safety Test. See Gary or Virgil for the exam if you have not taken BRAE 418 or BRAE 421.

IF YOU ARE THE LAST ONE IN THE LAB

- Make sure the tools are put back on the board and the tool board is locked
- Make sure any keys used to use specific equipment are removed and returned to their owner
- Turn out lights
- Lock lab doors (exterior and interior pass through doors)
- If you are the last one on the premises lock the ramp gates
- If you are in Lab 3 DO NOT lock the pass through doors between the ramp and Campus Market, but make sure the pass through door to Lab 4 is locked at Lab 4 (allow access to the restroom)

DO NOT

- Do not park outside of BRAE ramp gate.
 - If the gate is locked you can't park in front of it and leave your car until the gate magically gets open.
- Parking is not allowed on the ramp
 - Temporary parking is allowed to drop off and pick up supplies.
 - Absolutely do not park in front of ITRC door or in ITRC parking spots
 - Parking in front of any door could block its use. The ticket for this violation is expensive.
- If bathrooms are locked – call Police department (805-756-2281) to open the doors

- Please do not have females using the male restrooms. It only takes a few minutes for someone from the police department to come down and open the women's restroom.
- We are getting the restroom between labs 3 and 4 designated as unisex and a locking doorknob will be added to that restroom.
- Do not open alarmed doors. Those are not just pretty signs, silent alarms will go off, campus police will come
- Do not block pedestrian traffic to and from ramp
 - This is especially true during special events when families don't know how to get from northern parking lots up to the stadium area.

RAMP

- Do not dump oil, clean or dirty water, paint or any chemicals out on the ramp; it eventually ends up in the adjacent creek. This includes water from the faucets/spigots. It is not legal to dispose of any water/liquids in the storm water drains. If you witness anyone dumping anything on the ramp please notify the lab manager or techs and if it is after hours notify campus police.

SPECIFIC RULES

1. Each individual must provide his/her own personal protection equipment (safety glasses, welding gloves, leathers, etc.). If they are not available, the individual must leave.
2. Individuals working in labs 1, 4, 5, 6 & 7 must wear clothing and safety glasses **appropriate** to the activity currently taking place. Activities involving active usage of any **tools** (hand or powered) will require the usage of ANSI Z87.1 safety glasses, leg covering, and closed-toed shoes. Since labs 6 and 7 are 100% dedicated to usage of tools and fabrication equipment, these rules will apply at all times if work is taking place of any kind.
 - a. Leg covering may include (at least one required):
 - i. Long pants of nonflammable material (no light synthetics, including active wear/yoga pants/leggings)
 - ii. Work apron (if wearing nonflammable shorts)
 - iii. Mechanic's Coveralls
 - b. No light synthetics, athletic wear, yoga pants, etc... are considered safe when work is taking place.
3. Proper welding apparel must be used during any type of welding activity.
 - a. Proper welding apparel includes:
 - i. Leather welding gloves
 - ii. Welding cape or coat (leather or non-flammable material)
 - iii. Nonflammable work pants or jeans

- iv. Closed-toed shoes with adequate nonflammable material covering tops
 - v. Welding helmet
 - b. Anyone present within 6 unobstructed feet of a welding process must also wear proper welding apparel. Anyone welding must set up a weld screen whenever possible to protect others in the shop or individuals passing by the open doors.
- 4. Students must be “checked out” prior to usage of each piece of equipment. Setups on equipment including the plate shear, press brake, lathes and milling machines must be approved by the person in responsible charge (refer to Policy #5).
- 5. Laboratory activity/usage shall only take place under the responsible charge/supervision of a qualified individual. That individual will be present and available during all activity. At the conclusion of the work period, this individual will oversee all clean-up procedures.
 - a. A student working in a lab **must** be accompanied by a qualified individual at all times. Note: lab 6 and 7 are considered to function as a single laboratory.
 - b. An information board will post the names of all qualified supervisory individuals, with a provision for posting the name of the person in responsible charge for a particular work period.
 - c. Qualified individuals may include:
 - i. Instructor
 - ii. Departmental technician
 - iii. Qualified faculty / staff personnel
 - iv. Assigned student assistant
 - v. Approved student
 - d. Due to the dangerous equipment and usage of Labs 1, 6 and 7, qualified individuals to supervise these labs include:
 - i. Instructor
 - ii. Departmental Technician
 - iii. Qualified faculty / staff personnel
 - iv. Supervisory-level student technician
- 6. Faculty/Staff, Department Technician, and Student Technicians will immediately stop any work that is considered unauthorized or which appears to be unsafe.
- 7. Priority for laboratory/facility usage is as follows:
 - a. Regularly scheduled classes.
 - b. Supervision courses (senior project, special problems).
 - c. Club/extracurricular activities.

- d. Professional development/research activities
- 8. Insufficient clean up/organization is considered unsafe and may result in the loss of laboratory use privileges.
- 9. No tools/equipment from the tool boards and associated storage areas are to be removed from the shop area.
 - a. Reserve (backup) tools/specialty equipment may be checked out for short term (one day) usage. Equipment check out must be approved by and recorded with the departmental technician.
- 10. All damaged/faulty equipment will be reported to the department technician(s) at the earliest opportunity.
- 11. All laboratory projects and materials must be directly related to a class, BRAE Dept. Club, or professional development (Faculty/staff) activity.
- 12. Repair costs resulting from equipment misuse are the responsibility of the user or project sponsor.
- 13. Each project sponsor (student or otherwise) is financially responsible for consumables used.
- 14. Only materials designated as “scrap” are available for project use at no charge. Departmental supplies (nuts, bolts, etc) and remnants are only available on an exchange basis. Any exchange will be overseen by the person in responsible charge, and documented.
- 15. Projects of large size or scope that might affect shop use or accessibility must be approved by the departmental technician and associated faculty members.
- 16. Vehicle parking on the shop apron is prohibited, with the exception of 1) project material loading and unloading purposes, 2) ITRC vehicles in designated spots
- 17. Anyone in violation of safety rules may be asked to leave the premises until the insufficiency or violation is corrected (refer to Safety Corrective Actions).

Other General Items

- 18. Department and Student Technicians will be available for student assistance during regular posted hours. Shops and associated tool boards will remain fully secured otherwise.
- 19. All work on student projects, Club projects, or professional development/research projects, must be done during regular hours M-F 8am to 12pm, 1pm to 5pm, unless a time outside of the normal work window is pre-arranged, a qualified individual is supervising (see note 5), and the department technician is notified. Please note that technician time is limited. Weekend and after hours’ time in the shop must be pre-approved by the Department Head.
- 20. Students must plan ahead for lab use during posted hours and remember to give sufficient time for clean up each day of lab use.

21. All injuries must be reported to qualified supervising student or department technician. All major injuries requiring medical attention must be documented and reported to Department Head. Department Head shall inform other Cal Poly officials as per the CSU Workplace Injury Policy.

SAFETY VIOLATION CORRECTIVE ACTION GUIDELINES

BRAE department students are strongly encouraged to use the BRAE laboratories for their educational experience at Cal Poly, however safety must be the highest priority during all laboratory activities. If an individual creates an unsafe situation, unintentional or otherwise, it must be corrected immediately. BRAE department faculty, staff, and student technicians will be available to enforce corrective action guidelines.

An example may be someone who is repeatedly caught not wearing appropriate PPE (personal protection equipment) for their task, IE not wearing safety glasses or closed-toe shoes in the laboratory. Another example may be a repeated unsafe work habit such as: leaving a machine running while walking away, leaving a chuck key in, repeated improper cleanup of work area, or distractive use of their mobile phone while operating machinery.

In the case of a repeated safety violation, corrective action beyond a verbal notification may be required in order to break the unsafe habit(s) of the safety violator. The following is a documented guideline that may be adjusted to more strict actions if the situation demands it.

First Violation:

Violator is immediately notified of their unsafe practice. Violator must vocally confirm that they understand the safety risk they created.

Second Violation:

Violator is immediately notified of their unsafe practice. Violator must have an in-depth conversation with a supervising individual about the problem at hand. The violator's name and violation must be recorded in the safety log (available from the department laboratory technician). If the violation at hand caused a severe risk, the violator shall clean up and end laboratory activities for the day.

Third Violation:

Violator is immediately notified of their unsafe practice. The violator is required to end laboratory activities immediately. Laboratory-specific suspension duration is at the decision of the supervising BRAE faculty and staff connected with the situation. Typically suspension can be for one to several weeks, a complete quarter, or if the situation demands it, indefinitely. In addition to a suspension period, the student will be required to submit a quality, typed document addressing the unsafe situation and what are safe alternative practices (after the student has researched the topic). Document must be approved by the BRAE department laboratory technician and connected faculty and staff members. Details of the incident shall be recorded on a "Safety Corrective Action" form (available from the department laboratory technician).

Safety Corrective Action (Third Violation)

Use this document to record name of violating individual and the actions taken as outlined in the Safety Violation Corrective Action Guidelines (available in all BRAE129 Lab Manuals printed Fall of 2015 or later). The assigned document must be approved by all required individuals listed below, and a copy of the document *must be attached to this sheet*.

Name of Violator: _____

Time and Date of Violation: _____

Time and Date of Previous Violation: _____

Reporting Individual: _____

Minimum Date of Suspension End: _____

Detailed Description of Situation:

Description of Required Content of Assigned Document:

Assigned Document Approval Signatures:

Instructional Support Technician (required):

Print Name: X Date: _____

Additional Supervising Individual (optional):

Print Name: X Date: _____

Additional Supervising Individual (optional):

Print Name: X Date: _____

I (Print Name) hereby acknowledge that I have learned what my unsafe work habit was, why it was unsafe, and what alternative safe work habits I should replace it with. I acknowledge that the assigned document I have presented is completely my own original work.

Violator’s Signature: X Date: _____

Only sign upon closure of incident and completion of all steps