

# Safety Guidelines for Biology Teaching Laboratories

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## Contents

General Rules for Students .....	2
Clothing .....	2
Accidents and injuries .....	2
Handling chemicals .....	3
Handling glassware and equipment.....	3
Heating substances .....	3
Safety guidelines for the Microbiology laboratory .....	3
Hazmat transport procedures.....	4
Instructor guidelines for the use of the cadaver room.....	5
HAZ FORM WASTE PICK UP FORM.....	7
HAZ FORM WASTE PICK UP FORM.....	8
Usefull Phone Numbers .....	9
Safety and Security Department.....	9
Audio Visual Services .....	9
Chabot Computer Support (CCS) .....	9
Information Technology Services (ITS) - District.....	9
Chabot Campus Map.....	10

## General Rules for Students

- a. When entering a science laboratory, do not touch any equipment, chemicals, or other materials until you are instructed to do so.
- b. Know the location and operating procedures of all safety equipment including the first aid kit, eyewash station, safety shower, fire extinguisher, and fire blanket. Know where the fire alarm and the exits are located.
- c. Do not eat, drink, or chew gum in the laboratory or have food around the lab area. Keep hands away from face, eyes, mouth, and body while using chemicals or biohazard material or preserved specimens. Wash your hands with soap and water after performing all experiments. Clean all work surfaces and apparatuses if applicable at the end of the experiment.
- d. An instructor should be present at all times in the laboratory when potentially hazardous activities are carried out (use of Bunsen burner, chemicals, etc).
- e. Perform only those experiments authorized by the instructor.
- f. Never fool around in the laboratory. Horseplay, practical jokes, and pranks are dangerous and prohibited.
- g. Observe good housekeeping practices. When in the lab, students should concentrate on their work. Work areas should be kept clean and tidy at all times. Bring only your laboratory instructions, worksheets, and/or reports to the work area. Other materials (books, purses, backpacks, etc.) should be stored under the counter in order to keep aisles clear.
- h. Dispose of all chemical and bio hazardous waste properly. Never mix chemicals in sink drains. Sinks are to be used only for water.
- i. If you have a medical condition (e.g., allergies, pregnancy, immunodeficiency, etc.), check with your physician prior to working in lab.

## Clothing

- a. Any time chemicals or liquids are heated students should wear laboratory goggles.
- b. Wearing contact lenses in the laboratory may be hazardous. Regular eyewear is recommended instead.
- c. Long hair must be tied back. Dangling jewelry and loose or baggy clothing must be secured. Shoes must completely cover the foot, no sandals allowed.

## Accidents and injuries

- a. Report any accident (spill, breakage, etc.) or injury (cut, burn, etc.) to the instructor immediately.

- b. If a chemical splashes in your eye(s) or on your skin, immediately flush with running water from the eyewash station or safety shower for at least 15min. Notify the instructor immediately.

### Handling chemicals

- a. All chemicals in the laboratory are to be considered dangerous. Do not touch, taste, or smell any chemicals unless specifically instructed to do so.
- b. Never return unused chemicals to their original containers, unless instructed to do so by your instructor.
- c. Never remove chemicals or other materials from the laboratory area.

### Handling glassware and equipment

- a. Never handle broken glass with your bare hands. Use a brush and dustpan to clean up broken glass. Place broken or waste glassware in the designated glass disposal container. Examine glassware before each use. Do not use cracked glassware.
- b. Do not use damaged electrical equipment such as equipment with exposed wires, or loose connections. Report damaged equipment to the instructor.

### Heating substances

- a. Never leave a lit burner, or anything that is being heated, unattended. Make sure to only use certified glassware for this purpose. Always turn the burner or hot plate off when not in use.

### Safety guidelines for the Microbiology laboratory

In addition to the safety guidelines listed above the following rules should be followed in the microbiology laboratory.

- a. Wash hands before exiting the laboratory and whenever there is a possibility of exposure to a culture.
- b. Cover any cuts on your hands with a bandage.
- c. Treat all cultures as potential pathogens.
- d. Disinfect bench before and after the laboratory session.
- e. Do not touch your face, apply cosmetics, adjust contact lenses, or bite your fingernails.
- f. Minimize the use of sharps.
- g. Always use test-tube racks for the transport of test tubes.
- h. Notify Instructor and nearby students of any culture spill.

- a. Clean up spills protocol
  - i. Soak any spills or broken culture tubes with provided disinfectant.
  - ii. Cover the spill area with disinfectant-soaked paper towels for no less than 5 minutes.
  - iii. Wearing disposable gloves, clean up and place the materials in a biohazard autoclave bag to be autoclaved

### **Safety guidelines for Microbiology faculty and staff**

- a. Advise immune-compromised students (including those who are pregnant or may become pregnant), and students living with or caring for immune-compromised individuals to consult their physicians.
- b. Post biohazard signage where cultures are used and stored and on the door of the room.
- c. Only use cultures from authorized commercial or reputable sources.
- d. Keep stock cultures in a secure area.

### **Hazmat transport procedures**

- a. Stericycle and Premier Chemical remove our biohazard and chemical waste, respectively.
- b. Make sure the large plastic barrel for biohazard waste has a red biohazard bag for extra protection against leaks. This bag is extra thick.
- c. When the large plastic barrel is almost full (please leave 5 inch free so the barrel is not completely full), fill out the appropriate hazardous waste forms for Maintenance and Operations (M&O) to transfer (Appendix A).
- d. If you have liquid waste from dissecting animals, make sure it is only 4% formalin with no solids. The solids need to be in a red biohazard bag inside plastic barrel. Additionally, fill out the appropriate hazardous waste form for M&O (Appendix B).
- e. Send an email to our division office ([kbononcini@chabotcollege.edu](mailto:kbononcini@chabotcollege.edu)) for generating a ticket to M&O for transferring the biohazard waste; indicate our building number 2100. The waste has to be moved from Rm 2126 to Rm 3940 (CHEM Building).
- f. On the form, indicate how many barrels and/or buckets and their sizes, or if there is some uncommonly used chemical, attach the SDS. Let them know that we need back 2 big barrels.
- g. If there is a chemical being sent to waste that we don't normally use, fill out the form from Premier Chemical, attach the SDS, and send an email to Michael Montanus. Email: [mtmpchem@aol.com](mailto:mtmpchem@aol.com) and cc the Dean.

- h. Follow up by checking that the biohazardous waste has been picked up from your area. Ensure all biohazardous material is in building 3900 by Stericycle's pick up date. Make sure the containers are back into 2100 building and a red biohazard bag is in place.

### **Instructor guidelines for the use of the cadaver room**

- a. Instructor must be present at all times in the classroom while the lab is occupied.
- b. Upon entering the cadaver room the light will turn on automatically.
- c. Everyone using the cadaver room must wear Personal Protective Equipment (PPE):
  - 1. Students will bring disposable lab coats or they may use lab coats on the coat racks on the right upon entering the room.
  - 2. Students will bring disposable gloves, disposable masks, and safety goggles.
- d. Turn on the camera and monitor. Switch is located on the left upon entering the room.
- e. Sink and safety eye wash station are located on the south wall across from the entry door from anatomy.
- f. Turn on the downdraft dissecting table exhaust fan. The switch for both tables is located on the west wall next to the towel dispenser. Note that the table exhaust fans must be on when the cadaver(s) is (are) in use. General room circulation runs automatically.
- g. Carefully open the downdraft dissecting table by unlocking latches on the stainless hoods. Note that the hoods must be handled by two people at the same time as the hoods are heavy. The hoods fold beneath the table and are locked down by hooks.
- h. Check that the drainage pale is properly placed below the downdraft dissecting table in its receptacle.
- i. Uncover the cadaver(s) and proceed with lab.
- j. Students must follow the proper laboratory procedures and specific instruction for handling the cadaver(s). The cadaver(s) must be sprayed with the Carolina® wetting solution periodically to prevent the cadaver(s) from drying out.
- k. Before closing the cadaver(s), instructor must spray the cadaver(s) with the wetting solution, cover the cadaver(s) with gauze, and spray the gauze with the wetting solution, if applicable close the bag.
- l. Return the stainless hoods to the closed position and close the latches. The stainless hoods must be handled by two people at the same time as the hoods are heavy.
- m. Turn off the downdraft dissecting table exhaust fans. DO NOT leave the fans on after the tables are closed since it will cause the exhaust system to burn out and the cadavers will dry out prematurely.
- n. If any instrument was used during the lab, it must be cleaned with soap/disinfectant at the sink station then dried and returned to its proper location.
- o. Discard any fluid in the drainage pale into a biohazard fluid container with a secure lid. DO NOT leave any drainage fluid in the pale.

- p. Spray any spills with disinfectant and clean up with paper towel. Discard paper towel in the biohazard bin.
- q. Discard gloves, mask, and disposable lab coats in the biohazard bin or place the lab coat back on the rack. Remove goggles.
- r. Turn off the camera and monitor.
- s. Instructor must check to ensure everything in the cadaver room is in order, and should be the last one to leave the room.
- t. Exit and lock the room.



Appendix A

**HAZ FORM WASTE PICK UP FORM**

- DEPARTMENT SOURCE OF HAZ WASTE: BIOLOGY AND MICROBIOLOGY
- CONTACT PERSONS:
- CONTACT NUMBER:
- DATE PICKED UP: \_\_\_\_\_
- DATE DROPPED OFF AT 3940: \_\_\_\_\_
- TRANSPORTED BY: \_\_\_\_\_
- CONTACT NUMBER: \_\_\_\_\_

CHEMICAL NAME	SDS AVAILABLE	QUANTITY
		-Big Barrels



**Appendix B**

**HAZ FORM WASTE PICK UP FORM**

- DEPARTMENT SOURCE OF HAZ WASTE: BIOLOGY
- CONTACT PERSONS:
- CONTACT NUMBER: DATE PICKED UP: \_\_\_\_\_
- DATE DROPPED OFF AT 3940: \_\_\_\_\_
- TRANSPORTED BY: \_\_\_\_\_
- CONTACT NUMBER: \_\_\_\_\_

<b>CHEMICAL NAME</b>	<b>SDS AVAILABLE</b>	<b>QUANTITY</b>
		-small buckets



## Usefull Phone Numbers

### Safety and Security Department

The Chabot College Safety and Security Department public office is located in room #203 in building 200. This office is open from 6:30 a.m. to 10:00 p.m. Monday through Friday. If the office is closed, the on-duty safety officer can be contacted by telephone in the following ways:

- **For emergencies, dial 911 from any phone**
- Activate any one of the [emergency call boxes](#) located throughout the campus.
- Dial extension 6923 or 6666 from any college phone.
- From any off-campus telephone dial (510) 723-6923. M&O Emergencies

### Audio Visual Services

- Training and support for [Smart Classrooms](#)
- Media circulation and installation
- Maintenance of Audio Visual Systems
- Videoconferencing
- Request Media Equipment

**How to contact:** [/audiovisual/](#) Call the Help Desk at 925-424-1715 (or ext. 1715)

### Chabot Computer Support (CCS)

- Computer hardware/ software
- Desktop and laptop computers
- Phones
- Network
- Software licensing tracking
- Web and application servers

**How to contact:** call the Help Desk at 925-424-1715 (or ext. 1715) or enter your own ticket online: [Customer+Center](#) (on campus access only)

### Information Technology Services (ITS) - District

- Networking/ desktop support
- Programming Operations
- User support/training staff
- Web for Faculty/ CLASS-Web
- ConferZOOM

### Information Technology Services (ITS) - District (cont.)

**How to contact:** Call the Help Desk at 925-424-1715 (or ext. 1715) or to submit an online request, go to “Service-Now”, <https://clpccd.service-now.com/> and log in with the same username and password you use to log into your Windows Active Directory account on your PC (network and email login).

### Chabot College Campus Map



**CHABOT COLLEGE**  
HAYWARD, CALIFORNIA