

Micro 22 – Winter 2019

Rules and Regulations:

Our microbiology laboratory can be an interesting and exciting experience, but there are also potential hazards of which you should be aware. Improper handling of chemicals, equipment and/or microbial cultures is a dangerous practice and can result in injury or infection.

Because living microorganisms are an integral part of our lab sessions, we use aseptic techniques to keep materials free of contaminating organisms. Although the virulence (the degree of disease causing ability) of microbes used in this academic lab environment has been greatly diminished because of their long-term maintenance on artificial media, the basic steps below must be followed at all times!

1. **Food and drinks are NOT ALLOWED in any microbiology labs.**
2. **Wash your hands thoroughly**, upon entering and prior to leaving the laboratory!
3. To remain in the lab, you must be wearing a lab coat that goes to your knees (long sleeved and buttoned/closed in front), closed-toe shoes that cover the top of your foot, and clothing that covers your legs (no shorts or short dresses). Open wounds should be covered and protected before entering the lab.
4. Wear gloves and eye protection whenever hazardous chemicals or living cultures are handled.
5. Never apply cosmetics or insert contact lenses in the laboratory. Do not put anything (e.g. pencils) in your mouth while in lab!
6. At the beginning **and** end of each lab session, spray the top of your table with germicidal solution, using paper towels to spread the disinfectant and letting it air dry.
7. Keep your desk and floor free of non-essential materials at all times (including your cell phones!).
8. Know where the fire extinguisher, emergency eye/face wash and shower are located in our laboratory. Make sure chairs are not blocking the room's exits.
9. Keep cultures in a test tube rack to prevent accidental spillage. Always handle cultures with care.
10. Hot test tubes should be handled with test tube holders.
11. Never remove media, equipment, or bacterial cultures from the lab. Doing so is absolutely prohibited.
12. No visitors are allowed in the laboratory for liability and safety reasons.
13. Immediately cover spilled cultures or broken culture tubes with paper towels and then saturate them with germicide. After 15 minutes of reaction time, remove the towels and dispose of them in a manner indicated by your instructor. Broken glass is swept up with brush and dustpan, and discarded into a dedicated broken glass container.
14. All glass coverslips and broken-non repairable slides must be disposed of in the broken glass container.
15. Immediately report to the instructor any incidents such as cuts or burns.
16. When handling contaminated materials:
 - a. Do not put contaminated instruments, such as inoculating loops, needles, pipettes, on bench tops. Loops and needles must be sterilized by incineration. Contaminated pipettes and cotton swabs must be disposed of in the autoclave container ("burn box") in the back of the lab room.
 - b. Never pipette by mouth. Doing so is strictly prohibited. Pipetting is carried out with the aid of a mechanical pipetting device only, and the cotton plug in the top of the disposable pipettes is to be left alone.
 - c. Contaminated plates, swabs, and disposable pipettes must be disposed of in the biohazard container provided.
 - d. Contaminated test tubes must be placed in wire baskets provided in the autoclave bin in the back of the lab room with the rubber bands removed, and different types separated into different baskets.
 - e. Live mounts of hazardous organisms must be soaked in germicide for 15 minutes, before washing with soap and water. Organisms on stained slides are killed by the staining process, so these slides can be washed with soap after observation without soaking in germicide first. All slides must be cleaned, dried and returned to their proper boxes.

17. When using Bacti-cinerators:
 - a. They will reach optimum sterilizing temperature (1500°F/815°C) after 10 minutes. **Please turn off the bacti-cinerator at the end of lab, but leave them plugged in.**
 - b. **Do not let your inoculating loops or needles stay inside the Bacti-cinerator unattended!** They can fall out, and will weaken rapidly if heated too long.
18. Labeling:
 - a. Wax pencils and permanent markers are useful for writing on glassware and microscope slides.
 - b. Do not use tape because it is too difficult to remove.
 - c. Remove rubber bands before discarding test tubes or plates.

Sign the following and return to your lab instructor by the beginning of the second lab period, after you have carefully read & understand all the information in this handout!

I have carefully read the safety rules and regulations of our microbiology laboratory, and agree to abide by them.

Print your name: _____

Signature: _____

Date: _____

Supplies:

To drop off by the third lab:

_____ One booklet of 4x6 inch lens paper available at Mt. SAC bookstore.

_____ One package of 20 petri dishes (each 100mm diameter, 15mm tall), available at Mt. SAC bookstore.

To bring to every lab meeting:

_____ A lab coat, long pants, and closed-toe shoes are required to attend our lab. The lab coat needs to go to your knees and close in the front. It will protect your clothing from spilled cultures and stains. Your closed-toe shoes need to cover the top of your foot. These protective measures are required on and after _____ (date).

_____ Eye protection (goggles with a seal even if you wear glasses!) will be required when chemicals or living cultures are handled, which means you should bring them to every lab meeting. They will be required on and after _____ (date). *Tip: To avoid fogging inside your goggles, try rubbing any of the following materials on the inside surface, and then letting it dry: mild dish soap, baby shampoo, non-abrasive toothpaste, or shaving cream.*

_____ Gloves are required for everyone when chemicals or living cultures are handled. One box can often be shared by two or more students.

_____ Pencil and eraser.

_____ Fine tip permanent marker for labeling cultures.

_____ Scantron's for Quizzes/Final/Pathogen Test (882 x 17)

_____ Scantron's for Lecture Exams (886 x 3)