

Safety Rules for Quant Lab

Note: these will be strictly enforced.

Proper attire is required for admission into lab. Proper attire consists of:

1. Clothes must cover from the shoulder to the ankles. Tops with sleeves are required; long-sleeved tops and long pants are preferred. For certain experiments, long sleeves may be required for those who do not have a lab coat. Very loose or flowing clothes should not be worn. This is a minimum requirement for entry into the lab.
2. Shoes must be closed-toe and cover the entire foot. This is a minimum requirement for entry into the lab.
3. Long hair should be confined.
4. Safety glasses or goggles, approved by the instructor, must be worn at all times.
5. Lab coats are required.
6. Additional protective gear will be provided as needed for certain experiments. Specifically, gloves must be worn when working with concentrated acids or bases.

Students are also expected to bring: Their laboratory notebook (prenumbered with duplicate pages), safety glasses, pen and a calculator. Students who do not bring these items will not be permitted to participate in lab.

Storage of Chemicals:

In this class, you often make solutions and store them to be used later. You **MUST** properly label any chemical that is not in direct use. This includes solids that are being dried in the oven. A proper label consists of:

The name of the chemical and approximate concentration

Note: Chemical symbols are NOT acceptable

e.g., RIGHT: "hydrochloric acid" WRONG: "HCl"

Your name or other identifier

The date the solution was made

The NFPA hazard rating (diamond).

For mixtures: For each category use the highest number for each category from the substances mixed.

For example: If substance A had a rating of 1 – 2 – 0 and substance B was 3 – 1 – 0, the mixture would be labeled 3-2-0.

Labeling tape and NFPA stickers will be provided but should not be used for materials that will go in the oven. Sharpies can be used to label glass and can go in the oven.

Accidents and Spills:

1. Know the location of emergency exits, laboratory fire extinguisher, eyewash, first aid kit, broken glass container and clean up materials for spills.
2. Report all accidents immediately to the instructor.
3. Report all significant spills immediately to the instructor.
 If you are in doubt as to whether it is significant, report it!
 If you got some of the chemical on yourself, report it!
4. If you get a chemical on yourself, wash it off immediately. Wash two more times after you think you have removed it all. It is recommended to wash your hands before leaving lab.
5. Clean all chemical spills properly and promptly.

General:

1. Students may not perform unauthorized experiments or work in lab without supervision.
2. All equipment must be used properly and safely.
3. No food, chewing gum or drink (or even their containers) should be brought into lab.
4. No horseplay.
5. Cosmetics should not be applied in lab.
6. Clean up after yourself, leaving things as you found them or better. Benches must be wiped down before you leave for the day.
7. Each chemical is labeled with a diamond indicating the hazards of working with the material. Just remember that higher numbers indicate more danger. Details for the meaning of each number as described in Chapter 2 of Harris.
8. Chemicals that generate noxious or toxic fumes should only be used in the hood.
9. Do not make substantially more of a solution than will be needed for an experiment. You may round up a little to use the best equipment, but not a lot. For example, if you need 75 mL for your experiment, it is reasonable to make 100 mL but not to make 1 L!
10. Keep your notebook properly and remember that you will need sufficient detail from early experiments to refer back to later in the semester in order to be successful in later experiments.