



Laboratory Safety Guidelines – To be strictly followed

- 1. Work authorization:** Perform laboratory work only with the permission of your supervisor or in his/her presence. Unauthorized or unsupervised laboratory experimenting is not allowed. The first degree and higher degree students are not allowed to work in the laboratory after 5 PM in absence of their supervisor or assigned PhD scholar.
- 2. Use your commonsense:** Your concern for safety should begin even before the first activity. Always read and think about each laboratory assignment before starting.
- 3. Know the location:** Know the location and use of all safety equipment in your laboratory. These should include the safety shower, eye wash, first-aid kit, fire extinguisher, and blanket. Faculty members must educate the students about the safety before they start conducting experiments. In case of doubt, you can ask the lab instructors, TAs or research scholars.
- 4. Proper laboratory attire:** Wear a laboratory coat or apron and protective glasses or goggles for all laboratory work. Wear mask if you are dealing with fumes or harmful chemicals. Wear shoes (rather than sandals) and tie back loose hair. Casual dresses such as shorts, sleeveless shirts and loose clothes are not allowed. *If anybody enters without appropriate dress and shoes, he/she will not be allowed to work/use the lab.*
- 5. Getting ready:** Clear your bench top of all unnecessary materials such as books and clothing before starting your work.
- 6. Know your chemicals:** Check chemical labels twice to make sure you have the correct substance. Some chemical formulas and names differ by only a letter or number. Pay attention to the hazard classifications shown on the label. Refer to Material Safety Data Sheet (MSDS) before using the chemicals.
- 7. Unattended chemicals:** You may be asked to transfer some laboratory chemicals from a common bottle or jar to your own test tube or beaker. Do not return any excess material to its original container unless authorized by your supervisor. When you finish your work, do not leave your chemicals unattended on benches. Return the chemicals to the lab instructors and/or your supervisor after every experiment. In case of unattended containers, it must be properly capped and labeled.
- 8. Laboratory conduct:** Avoid unnecessary movement and talk in the laboratory. Do not listen to music at high volume. DO not play/fiddle with the equipment you are not using and electrical connections. Maintain an appropriate distance from your equipment. Handle it responsibly.





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9. **Personal items:** Never taste laboratory materials. Gum, food, or drinks should not be brought into the laboratory. If you are instructed to smell something, do so by fanning some of the vapor toward your nose. Do not place your nose near the opening of the container. Wash your hands thoroughly with soap after handling chemicals or biological materials. Do not use microwave or refrigerators used to store chemicals to store personal food items.

10. **Test tubes:** Never look directly down into a test tube; view the contents from the side. Never point the open end of a test toward yourself or your neighbor.

11. **Whom to reach to:** Any laboratory accident, however small, should be reported immediately to lab instructor and/or your supervisor. See point 18 for names of contact persons.

12. **Chemical spill:** In case of a chemical spill on your skin or clothing rinse the affected area with plenty of water. If the eyes are affected water-washing must begin immediately and continue for 10 to 15 minutes or until professional assistance is obtained. Minor skin burns should be placed under cold, running water.

13. **Fire hazard:** In case of fire, use fire extinguishers and blankets. Pull the fire alarm, evacuate the space and notify others.

14. **Discarding waste:** When discarding used chemicals, carefully follow the instructions provided. Each lab has an area with receptacles for collecting waste. Only discard waste in waste containers – can be mixed only if compatible. When the waste container is full move it to the designated waste storage site.

15. **Return items:** Return equipment, chemicals, aprons, masks, and protective glasses to their designated locations.

16. **Cylinders:** Cylinders must be secured in upright position. Use suitable racks, straps, chains or strands to support the cylinders.

17. **Check before you leave:** Before leaving the laboratory, ensure that gas lines and water faucets are shut off. The glassware and work place must be properly cleaned.

18. **Contact names:** If in doubt, ask! You may contact Mr. Jangvir (8058425988), Mr. Ashok Saini (9799276299) and Mr. Jeevan Lal Verma (9983526548).

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