



College of Science and Mathematics

Laboratory Safety Guidelines

The College of Science and Mathematics is committed to providing a safe environment for all. However, laboratory safety is a mutual responsibility and requires full participation and cooperation of all involved persons - students, faculty and staff. The following Lab Safety Guidelines have been established for your protection as Faculty, staff, student or visitor. These guidelines are a part of the Chemical Hygiene Plan and will be rigidly and impartially enforced. Noncompliance may result in a grading penalty and/or dismissal from lab, or termination of employment.

Personal Protection

1. Safety glasses must be worn in the lab when safety precautions for the activity require it. In general, if anyone using glassware, heat, sharps, projectiles and/or hazardous materials, or any other activity that may cause injury to the eye, everyone in the room is required to wear safety glasses. The glasses must be of the impact protection type with splash guards and must meet ANSI Z87.1 specifications. Other eye/face protection may be required with specific procedures. We want all to be in the mindset that as you pass through the atrium, across the bridge or up the ramp into the lab areas your safety glasses go on
2. Contact lenses are discouraged. The safety of wearing contact lenses in laboratories has been hotly debated over the last several years. Both the ACS and OSHA have issued statements indicating that contact lenses can be worn if and only if proper protective eyewear is also worn. In addition, they cannot be worn when working with specific chemicals or situations. The College of Science and Mathematics recognizes that some eye conditions require contacts for certain vision correction therapies. However, students who choose to wear contacts must recognize the inherent increased risks - they are difficult to remove if chemicals get in the eye, they have a tendency to prevent natural eye fluids from removing contaminants, and sudden displacement can cause visual problems that create additional hazards. Soft contact lenses are especially problematic because they can discolor and also absorb chemical vapors causing damage before the wearer is alerted to the problem. If you choose to wear contacts, please tell your lab instructor or PI and check the SOP for the procedure you are doing.
3. Appropriate gloves will be provided when needed.
4. Use of gloves is required for handling chemicals, microorganisms and chemically preserved specimens.

5. Remove your gloves and wash your hands before exiting a lab room. Do not wear your gloves in the hallway. Use the “one glove rule” when transporting materials in the hall.
6. Appropriate clothing is required. Your clothing is a barrier between your skin and chemicals. No bare midriffs or shoulders. You must be covered to the ankle to protect your legs. Knee length shorts and dresses are only acceptable in physics labs or computer labs, where chemicals are not being used, but not recommended. Lab coats are recommended and can be purchased from the bookstore or other sources.
7. Shoes must be worn. No sandals open toed or open heeled shoes. Shoes must cover the entire foot.
8. Secure loose clothing and long hair when working with equipment, open flame, any chemicals or biological substances.
9. Do not eat, drink (including coffee cups, sport bottles and water bottles). Do not store food in the labs.
10. Do not apply cosmetics in the lab. You should avoid touching your eyes and mouth in the lab.
11. Smoking or use of other tobacco products is prohibited.
12. Wash hands after working with chemicals and biological agents.
13. It is the recommendation of this department that all students of reproductive age, especially women who have recently conceived or are anticipating conception during the semester, discuss the course content and reagents with their physician if they are working with reproductive toxins.

General Lab Rules

1. Conduct yourself in a responsible manner at all times in the laboratory.
2. Avoid working in the lab alone. Some procedures are forbidden while working alone. It is best to employ the “buddy system” to have someone with you while working in the lab. If necessary, a friend may accompany you with the approval of the lab safety officer.
3. Learn where the safety and first-aid equipment is located. This includes fire extinguishers, fire blankets, and eyewash stations.
4. Read all instructions carefully and plan your work. Understand the experiment and if in doubt, ask.
5. When first entering a lab room, do not touch any equipment, chemicals, or other materials in the laboratory area until you are instructed to do so.
6. Follow the Standard Operating Procedure (SOP) or lab instructions – Any deviation from this must be in writing and approved beforehand.
7. Treat any equipment with care and respect. Be aware of any related hazard. Do not operate any equipment without proper permission and instruction. Follow the SOP for that equipment.
8. Lab tables should be as uncluttered as possible to allow work space and avoid accidents. Also, keep the aisles clear to prevent tripping over your gear, and so that other people can pass unhampered. Place book bags, pocketbooks, etc. under the lab tables. In some labs, seats or stools are not to be used during labs – individuals need to be mobile to avoid possible spills and are not to place themselves under the edge of the lab bench where chemicals may spill.
9. Leave the lab area clean. Put equipment and chemicals away and wipe off the bench top.

10. Treat chemicals with respect and understand the chemicals you are using. Read the label carefully when removing a chemical from the shelf. Read the Safety Data Sheets (MSDSs) before you begin to work with the chemical. SDS are available in the red binders in each room. Do not remove the SDSs from the binders. Bring the binder to the Department office to request a copy.
11. Always label a culture or chemical with the proper information. Name of item, date made, concentration, your name/initials, hazard information and class or procedure. Each room has a poster detailing how to create a secondary container label.
12. Use the chemical fume hood to carry out procedures in which noxious fumes are produced or there is a danger of explosion or when using a concentrated form of a chemical. Do not use a biological safety cabinet/ laminar flow hood for this purpose.
13. When preparing a dilute acid solution, never pour water into concentrated acid; always pour acid into water while stirring constantly. Cool the solution if necessary while mixing.
14. Handle all living organisms used in a laboratory activity in a humane manner. Preserved biological materials are to be treated with respect and disposed of properly
15. Treat all microorganisms as potential pathogens. Always use sterile (aseptic) technique when handling cultures. Use a biological safety cabinet with potential airborne pathogens.
16. Students are never permitted in the storage rooms or preparation areas unless given specific permission. Research students, faculty and staff are only allowed in areas where authorized.
17. Lab activities require your undivided attention. No loud music or other entertainment allowed in labs. Radios, iPods and other entertainment devices should be played at a low volume so that you can hear what is happening in your surroundings. The use of headphones is prohibited.
18. CSM lab computers are for laboratory business only
19. No cellular phone use is allowed while you are performing any laboratory activity. It is recommended you keep your cell phone on your person to summon help if needed.
20. Notify the lab safety officer or lab coordinator immediately in case of an accident, no matter how small it seems. Contact information is located in every lab room.

Disposal of Wastes:

1. Do not dispose of chemicals in the sink. (Rule of Thumb: If you don't want to drink it, don't dump it in the sink). There is a waste collection area in every room. Be sure to dispose of chemicals in the proper waste collector. Do not mix chemical waste without being instructed to do so. **Any container that is used to collect chemical waste must be properly labeled and closed at all times unless actively pouring into it.**
2. Properly dispose of animal tissue, cultured cells and microbial plate cultures in the red or orange biohazard bags. Never throw biological or biohazardous waste in lab garbage cans. Never place biohazard bags in the trash cans until properly sterilized.
3. Dispose of broken glass in the cardboard "broken glass box" in your lab.
4. Place "Sharps" (scalpels, needles, razorblades, etc) in the sharps boxes.

Do not place general trash in the any of the specialized collection containers.

Who to Contact

If you have any questions, the following are your safety resources:

- Department of Biology and Physics Laboratory Safety Officer,
Dale A. Zaborowski, SC 309, 470-578-6165, dzaborow@kennesaw.edu
- Chemistry and Biochemistry Laboratory Safety Officer,
Benjamin Huck SC409 470-578-6404, bhuck@kennesaw.edu
- Environmental Health and Safety, 470-578-3321, ehs@kennesaw.edu