

Valencia College Science Laboratory Rules

Prevention is the key to a safe and effective laboratory experience.
KEEP THIS COPY FOR YOUR RECORDS – DO NOT TEAR OUT!

Maintaining a safe and vigilant laboratory environment is expected of all students, instructors, and laboratory workers. Proper attire, behavior, and training are important for protection from potentially harmful substances or situations such as chemicals, broken glassware, or emergency scenarios.

All laboratory rooms follow these safety rules - applicable to anyone entering the laboratory at all times - regardless of the activity. Anyone in violation of these policies may be removed and may face further disciplinary action.

- 1) Wear close-toed and close-heeled shoes (such as sneakers) at all times in the laboratory room.
 - Sandals, Crocs, and flip-flops are always prohibited in the laboratory. Shoes should have a low heel with a flat bottom. Socks, that cover the ankle, are recommended.
- 2) Never have food, drink, chewing gum, candy, or tobacco products visibly present in the laboratory room.
 - Do not put anything in your mouth while working in the laboratory.
- 3) If special precautions or accommodations are required, please supply documentation from the Office for Students with Disabilities or a medical professional.
 - Inform your instructor or supervisor if you have any medical condition that may compromise your safety in laboratory. This can be done in confidence in a meeting between you and your instructor/supervisor.
- 4) Locate and learn how to use all safety equipment in the laboratory. This includes, but is not limited to: emergency safety showers, eyewashes, fire extinguishers, fire blankets, emergency shut-off valves, etc.
 - Do not use laboratory equipment or materials without proper instruction and/or training and proper supervision.
 - Notify your instructor or laboratory supervisory personnel if any laboratory equipment is not working properly or is broken or damaged.
- 5) Do not obstruct emergency equipment, exits, and aisles at any time.
- 6) Avoid crowding and haste and maintain a clutter-free environment.
- 7) Report spills, accidents, and injuries to your instructor or laboratory supervisory personnel immediately, regardless of how minor.
 - Do not attempt to clean up chemical spills until consulting with your instructors or laboratory supervisory personnel.
 - Immediately clean up broken glass with a dustpan and broom or other approved device. Do NOT handle broken glass with your hands.
 - Place broken glass ONLY in designated broken-glass containers.
- 8) Recap all bottles, especially those containing chemicals or biological materials, immediately after use.
- 9) Do not deviate from lab procedures or attempt unauthorized experiments without instructor approval.
- 10) Do not allow liquids (i.e., water) to come into contact with electrical equipment, outlets, or cords.
 - Handle electrical cords with dry hands and remove electrical plugs from outlets by pulling on the plug and not the cord. Turn off equipment before unplugging.
- 11) Wash hands thoroughly with soap and water after handling any chemicals or biological materials.
- 12) Clean your work table, other work areas, glassware, and equipment immediately after completion of the experiment or activity.
- 13) Dispose of all waste materials in the designated area(s) as instructed.
 - Dispose of all solid waste in approved, designated containers. Do NOT use laboratory sinks for disposal of any solid waste.
 - Dispose of liquid wastes in approved, designated containers unless instructed to dispose into the laboratory sinks.
- 14) Turn off all equipment if you leave the lab at any time and at the end of lab.
 - Check that all water faucets, gas outlets, and/or other valves are turned off before you leave lab.

Chemical/Biological Hazards

The following laboratory rules are in effect when a significant chemical hazard, biological hazard, or other hazardous activity occurs in the room. Specific instructions on the use and implementation of these rules will be given by your instructor or other supervisory laboratory personnel.

- 15) The Chemical Hygiene Plan (CHP) and Material Safety Data Sheets (MSDS) for chemicals used in the laboratory are available upon request.
- 16) Personal protective equipment (PPE) such as protective eyewear (e.g., safety goggles) and gloves will be worn at all times when working with hazardous chemical and biological materials or other hazardous items.
 - Wear close-toed and close-heeled shoes (such as sneakers) at all times in the laboratory room. Sandals, Crocs, and flip-flops are always prohibited in the laboratory. Shoes should have a low heel with a flat bottom. Socks, that cover the ankle, are recommended.
 - Wear safety goggles (provided in the chemistry labs) in the lab. **Goggles must meet ANSI Z87+D3 standards, protecting against splash and high impact.**
 - Wear a chemical-resistant apron or appropriate lab coat that completely covers the shoulders, chest, and abdomen. (See your instructor for particular details.)
 - Wear full-coverage clothing that covers your top, midriff, and legs to the knee or lower.
 - Never wear loose-fitting jewelry or clothing that may become entangled in laboratory equipment or pose any other danger.
 - Secure hair or hair coverings that are shoulder length or longer behind or on top of the head.
 - Do not wear contact lenses when working with acrylonitrile, 1,2-dibromo-3-chloropropane, ethylene oxide, methylene chloride (dichloromethane), and 4,4'-methylene dianiline. In most other cases, the use of contact lenses is acceptable; check with your instructor for specific details.
 - Wear PPE as soon as you enter the laboratory when hazards are present. Keep it on until you exit the laboratory.
- 17) Flush any body part that directly contacts corrosive material immediately with lots of water for no less than 15 minutes.
- 18) Never directly smell a chemical.
 - When instructed, fan or waft the chemical vapors toward the nose by hand.
- 19) Always add acid to water (AA), never the reverse.

Other important rules should be applied according to the nature of the laboratory dangers such as the following.

- 20) Use caution with hot plates.
 - Since they may remain hot after use, use caution at all times.
 - Do not allow cords to come into contact with the surface of the hot plate.
 - Do not return hot plates to closed cabinets or stack on top of each other when hot. Allow them to cool beforehand.
 - Do not leave active hot plates unattended.
- 21) Only use heating devices, such as Bunsen burners, when authorized by the instructor.
 - When performing experiments with heating devices, always inspect equipment prior to heating for cracks, stars, or imperfections/defects.
 - Never leave an open flame unattended.
- 22) Ensure that materials are never heated in a closed system. Position test tubes, separatory funnels, and other vented instruments away from personnel.
- 23) Never pipette liquids by mouth. Use bulbs, pipetting devices, or other necessary equipment.
- 24) Lubricate a thermometer or any other glass piece when inserting it through a stopper or plastic thermometer holder using grease, glycerin, or another proper lubricant. Protect hands with gloves during this activity.
- 25) Keep gas valve(s) off when not in use.

Special Conditions