



## Science Laboratory Safety Contract for Biology Students

Universal Science Laboratory Agreement for  
Perimeter College

Science Lab course number	Semester and year	Campus
Instructor	Meeting Day/Time	Room number

Students will not be permitted to remain in the laboratory without completing and signing this document.

Student Name (printed): \_\_\_\_\_ GPC Student ID number: \_\_\_\_\_

I acknowledge and agree to all of the following:

- I have received a printed copy, or the address of an electronic copy, of the **Science Laboratory Safety Guidelines**.
- I have read carefully and understand all of the **Science Laboratory Safety Guidelines** provided to me.
- I understand that I am responsible for following the **Science Laboratory Safety Guidelines** at all times.
- I understand that my safety and the safety of my classmates depend on my actions in the science laboratory.
- I understand that failure to follow these **Science Laboratory Safety Guidelines** could result in a serious accident or injury.
- I understand that students who do not follow the **Science Laboratory Safety Guidelines** may be asked to leave the laboratory and will receive no credit for the missed exercise or assignment. Multiple violations of the **Science Laboratory Safety Guidelines** could result in disciplinary sanctions, which can include expulsion.
- I am aware that science laboratories contain materials which, if handled improperly, may be hazardous, particularly for students with chronic medical issues or students who are pregnant or nursing. I will consult my physician or health care provider about potential risks associated with the laboratory if I have a medical issue or concern. I understand that if I wish to withdraw from the laboratory after consultation with my physician or health care provider, I will need to submit a letter from the physician or health care provider within the first two weeks of class indicating that I should not continue in the laboratory due to a health risk. I understand that I assume all liability if I decide to remain in the laboratory portion of the course.
- I have also read, understand and agree to comply to the rules and policies stated in the Perimeter College Safety Training PowerPoint Presentation from GSU that is on iCollege.

Signature \_\_\_\_\_ Date \_\_\_\_\_





## ***Science Laboratory Safety Guidelines for Biology Students***

### **General Science Laboratory Safety Guidelines** (applicable to all Science laboratories)

1. Be familiar with and follow these ***Science Laboratory Safety Guidelines***.
2. Prepare before you come to lab. Read your laboratory manual or other assigned readings and instructions carefully before lab. Pay close attention to any safety concerns.
3. Listen carefully to instructions given before, during and after the lab.
4. Come to the laboratory prepared to perform laboratory experiments or activities. Obtain and bring all personal protective equipment required by the instructor or by laboratory guidelines. This may include gloves, goggles, laboratory coats, aprons, etc. You are responsible for inspecting your personal safety equipment for leaks, tears or damage, and replacing it as necessary to avoid accident or personal injury.
5. Come to the laboratory dressed appropriately for all possible safety hazards. This includes the following:
  - a. Closed-toed shoes must be worn in all science laboratories. Open-toed shoes, shoes with holes or openings on the foot, sandals, flip flops, ballet slippers, flats which expose the top of the foot, high heels, and platform shoes shall not be worn to the science laboratory. Laboratory activities may expose you to hazardous chemicals, heated, or heavy items that may injure the feet if spilled or dropped. Shoes should be made of an impermeable material such as leather. Cloth shoes may permit hazardous chemicals to penetrate.
  - b. Avoid exposed skin in science laboratories. Shorts, skirts which expose the legs, pants with holes, exposed midriffs, and cleavage or plunging necklines are not appropriate for a science laboratory. Painful burns and disfiguring scars may result from exposure of bare skin to chemicals. Long pants and long sleeves are recommended. Tights and panty hose are not adequate leg covering. Laboratory coats or aprons are strongly encouraged.
  - c. Do not wear loose fitting clothing, flowing sleeves, dangling scarves or jewelry, heavy coats, or jackets in the laboratory. Loose fitting clothing or dangling scarves or jewelry can get caught on equipment or get into flames or chemicals.
  - d. Pull back or otherwise secure long hair, headscarves, hijabs, and other loose clothing. As an option, personal protective devices, such as personal face veils and masks may be used.
  - e. Use appropriate personal protective equipment, such as goggles or gloves, when working with chemicals, small particles or projectiles, flames or sources of heat, or as directed by your instructor.
  - f. If "loaner" goggles are used, they should be sanitized between uses.
6. In case of medical emergency, students should carry a wallet card with emergency contacts, and medical information including allergies, medical conditions, medications, physician's name and phone number, and health insurance information.
7. Do not bring food or drink into any laboratory unless it is to be used as part of a laboratory experiment.
8. Do not eat, drink, smoke, chew gum, or apply cosmetics (including hand lotion and lip balm) in any laboratory room where hazardous chemicals, radioactive materials, or biohazards are used or stored. Do not taste or put anything into the mouth in the laboratory.
9. Keep hands, writing instruments, and laboratory materials away from face and mouth.
10. Georgia Perimeter College prohibits student use of cell phones, pagers, or similar communication devices in



lassrooms, laboratory areas, libraries, and Learning and Tutoring Centers. Exceptions to this policy, due to special circumstances, shall be at the discretion of the Laboratory Supervisor in the individual area.

11. Students are not permitted in the laboratory without the supervision of an instructor at any time. Please wait outside the room until your instructor arrives. Only students officially enrolled in the course may be present in the laboratory except for brief tours/visits with the Laboratory Supervisor or instructor present.
12. Students are not permitted in the laboratory prep rooms or chemical storage areas at any time.
13. Students should be aware that science laboratories contain materials which, if handled improperly, may be hazardous. Material Safety Data Sheets (MSDS), which describe hazards associated with the chemicals used in the science laboratory, are available from the instructor or Laboratory Supervisor. Students are free to examine MSDS, but may not remove them from the laboratory. MSDS are also available online. <http://www.usg.edu/ehs/library/msds.phtml>.
14. For your protection, bandage all exposed cuts before dissecting or using chemicals.
15. All body fluids are considered to be potential biological hazards. If a body fluid is present in lab due to injury, accident, or as part of an experiment, personal protective equipment such as gloves and goggles must be used when handling or cleaning up potentially hazardous biological material.
16. Students who have, or who develop, chronic medical issues such as (but not limited to) hypoglycemia, diabetes, epilepsy, heart ailments, any other medical condition which may cause sudden loss of consciousness, and students who are pregnant or nursing, should consult with their physicians or health care providers as soon as possible about potential risks associated with participation in a science laboratory. Such students assume all liability if they decide to remain in the laboratory portion of the class. A student who wishes to withdraw from a laboratory after consultation with his/her physician or health care provider should submit a letter from the physician or health care provider indicating that the student should not continue in the laboratory due to a health risk.
17. IMMEDIATELY notify your instructor for assistance if you are injured, or if any type of accident, chemical spill, or breakage occurs.
18. Familiarize yourself in advance of the location and proper use of safety equipment such as fire alarm, fire extinguisher, emergency eyewash, safety shower, fire blanket, and phone.
19. Use step stools to reach high objects. Never stand on laboratory stools or chairs.
20. Maintain a neat laboratory workspace with work area and aisles free of personal items. Do not create trip hazards. Know the location of the nearest exit. Pathways to exits must be clear.
21. Conduct only those experiments authorized by the syllabus or the instructor.
22. Never handle equipment, supplies, or chemicals until you have been given specific information on their use and safety considerations.
23. Guidelines for the use of equipment, supplies and chemicals including the following:
  - a. Observe and respect all safety signs on equipment.
  - b. Avoid direct contact with hazardous chemicals.
  - c. Use all equipment and hazardous chemicals only in accordance with their intended purpose.
  - d. If you open any container, re-cap it securely.
  - e. Use care when dealing with laboratory burners, hot plates and steam generators. Turn such equipment off when not in use. Always handle such equipment as if it were hot, even when you do not see a flame or it appears to be off.
  - f. Keep laboratory equipment and breakable items away from edges of tables, benches, or counters.
  - g. Carry microscopes with both hands.
  - h. Do not use microscopes if you have an eye infection.
  - i. Be alert for sharp or broken objects which may cause injury.
  - j. Do not use cracked or chipped laboratory glassware.
24. Students must follow all guidelines for disposal of materials including:
  - a. Do not attempt to clean up broken glass, a chemical spill, or breakage of a mercury thermometer by yourself. Notify your instructor IMMEDIATELY in the event of a breakage or a chemical spill.
  - b. Dispose of needles, nails, and other sharp objects in an approved sharps container.
  - c. Dispose of broken glass in a broken glass container.
  - d. Dispose of other hazardous materials as specified by your instructor.
  - e. Correctly discard any excess reagents. Do not return any excess reagent to the stock bottle.
  - f. Dispose of all chemical waste in the proper waste container as indicated by your instructor. NEVER pour any chemical down the sink without explicit permission from your instructor.
25. No horseplay will be permitted in the laboratory. Do not distract or startle other people when they are handling



- azardous materials.
26. Any student who endangers another's safety or his/her own safety will be forbidden use of the laboratory.
  27. Damage, destruction, or theft of Georgia Perimeter College property is prohibited and will be subject to punishment prescribed in accordance with the Student Responsibilities Section of the Georgia Perimeter College Student Handbook or other appropriate policies.
  28. Reconfiguring the laboratory computers or installing any program onto the laboratory computers is prohibited.
  29. Before leaving the laboratory:
    - a. Clean up after yourself in all science laboratory areas. Clean and return all materials to their proper location. Wash test tubes, beakers, and other glassware. Thoroughly wipe down your laboratory space before and after each exercise with cleaning liquids provided.
    - b. Turn off all gas nozzles and water faucets before leaving the laboratory. Turn off and unplug all hotplates, meters, and other electrical items before leaving the laboratory.
    - c. Disassemble your experimental set up and leave your laboratory station as you found it. For instance, remove any clamps, tape, string, etc. that you placed on the equipment.
    - d. Return items that you have used to their storage locations.
    - e. Sinks are not trash receptacles. Do not dispose of any trash in the sink.
    - f. Wash your hands with soap and water before you leave the laboratory.
    - g. No laboratory material is to leave the laboratory.
  30. In laboratories with controlled ventilation systems, doors must remain closed.
  31. It is the goal of Georgia Perimeter College to provide a safe and effective environment for students and employees to learn and to work. Generally, children under the age of sixteen (16) are not allowed in the College classroom(s). Due to the particular dangers in the College laboratories, under no circumstances, whatsoever, should children be allowed in the College laboratories. The policy shall not apply to students under the age of sixteen who are enrolled in a course or program, either for credit or non-credit, or recreation, or who are attending any event on campus which is open to the public.

All science laboratory students are required to comply with **Science Laboratory Safety Guidelines** as specified in this document and any additional guidelines that may be listed in their course syllabi. Any student who does not comply with these **Science Laboratory Safety Guidelines** will be subject to the following penalties:

Violation	Consequence
First Safety Violation	Warning
Second Safety Violation	Removal from laboratory class and assignment of a zero for that laboratory class period. The Instructor will complete the Disruptive Behavior Form. See GPC Policy on Disruptive Student Behavior in an Academic Setting.
Third Safety Violation	Third violation constitutes willful disregard of laboratory rules. See GPC Policy on Disruptive Student Behavior in an Academic Setting. Disciplinary sanctions as deemed appropriate as specified in the Student Code of Conduct, which can include expulsion.

### Biology-specific Laboratory Safety Guidelines

1. Be familiar with and follow all **General Science Laboratory Safety Guidelines**, above.
2. Do not bring any biological material from outside the laboratory into the laboratory unless specifically instructed to do so as part of a laboratory exercise.
3. Use appropriate personal protective equipment as directed.
  - a. Wear goggles and gloves when dissecting and when directed by the instructor.
  - b. When instructed, wear gloves when handling chemicals.
4. Wash your hands with soap and water both before laboratory class and before you leave the laboratory.



5. Do not sit on laboratory work stations.
6. Use extra care when working with scalpels or sharp instruments.
7. Never lay a test tube flat on work station. Test tubes must be placed in test tube racks.
8. Before leaving the laboratory follow appropriate cleanup procedures as follows:
  - a. Dispose of used, preserved specimens, live organisms, or dead organisms in the designated **red bag-lined biohazard box** or autoclave bag. Do not dispose of used, preserved specimens, live organisms, or dead organisms into a regular trash can. This is a **severe** violation of the safety guidelines.
  - b. Never pour bacterial cultures down the drain. Dispose of bacterial cultures as directed by your laboratory instructor.
  - c. Put away all microscopes properly with scanning objective in place, and center the mechanical stage so that extended arms DO NOT strike other microscopes or walls of the cabinet.
  - d. Clean all prepared slides and return to the correct slide tray. Do not throw glass slides or cover slips in the trash. Dispose of them as directed by your laboratory instructor.
  - e. Place any biologically-contaminated items (toothpicks, sheep blood, swabs, slides) into the appropriate biohazard disposal container as indicated by your instructor.
9. It is the policy of Georgia Perimeter College (GPC Policy Manual, section 325, <http://www.gpc.edu/governance/policies/300/325.html>) to follow all CDC guidelines, OSHA, and state regulations related to infection control and treatment of biohazardous waste to help insure the health and safety of our employees, faculty, and students. The procedure for ensuring that adequate infection control measures are taken in Biology Laboratories is as follows:
  - a. Blood and other body fluids testing should be limited to courses where discussion of safe handling techniques is taught as part of the laboratory procedure.
  - b. Gloves must be worn when taking blood, touching blood or other body fluids, or mucous membranes. Gloves must be changed after contact with each subject and discarded into marked waste receptacles. Hands and other skin surfaces must be washed immediately with germicidal soap after removing gloves or if contaminated with blood or other body fluids.
  - c. Disposable lancets, swabs, cotton balls or other items used in sampling body fluids must be placed in marked waste receptacles lined with heavy plastic bags or autoclavable bags convenient to the work area in the lab. Waste bags must be removed daily and autoclaved or incinerated.
  - d. Glassware, slides or other reusable items contaminated with blood or other body fluids must be placed in fresh solutions of Clorox or other appropriate disinfectant. Work areas must be wiped down with Clorox or other appropriate disinfectant. Contaminated paper waste must be placed in garbage bags which must be sealed and sent to an incinerator or autoclaved.
  - e. Mouthpieces for spirometers must be changed for use by each student and used mouthpieces discarded by the student into contaminated waste bags. The unit must be cleaned at the end of daily lab use with an appropriate disinfectant. Small spirometers should not be used.
  - f. Earpieces on stethoscopes must be cleaned before and after use with appropriate disinfectant. Stethoscopes should not be used if the user has lesions or open wounds about the face or ears.
  - g. Refer to college policies regarding cleaning microscopes.
  - h. In taking samples of body fluids (throat cultures, saliva or urine specimens), the person working with another student's sample must wear gloves. Where potential for splatter or splash exists, the person sampling must use glasses or shield. Persons with cuts or lesions should not take samples. Any contaminated disposable items (swabs, etc.) must be placed by student into appropriate disinfectant or autoclavable disposable bags. It is recommended that disposable lab aprons or smocks be required for all labs where splash or splatter potential exists and that they be disposed of as contaminated wastes.
  - i. Place "cut kits," for cleanup of blood from accidental injury, in all labs or clinics where potential for injury exists. Cut kits may be assembled from common household items and are in addition to first aid kits already provided.

