# Biology Lab Safety Contract

**Biology is a hands-on laboratory class. Students will be doing many laboratory activities that may require the use of chemicals, laboratory equipment, and other items that, if used incorrectly, can be hazardous. Safety in the science classroom is the number 1 priority for students and teachers. To ensure a safe biology classroom, a list of rules has been developed and provided to you in this student safety contract. These rules must be followed at all times. The student must sign their copy. Please read the entire contract before you sign. Students will not be allowed in the laboratory until all their contracts are signed and given to the professor.**

**General Guidelines (All Lab courses)**

1. Follow all written and verbal instructions carefully.  Read labels and equipment instructions before use.

2. Never work alone in the laboratory.  No student may work in the science classroom without the presence of a teacher or lab support personnel.

3. Do not touch any equipment, chemicals, or other materials in the laboratory area until you are instructed to do so.

4. Do not eat food, drink beverages, or chew gum in the laboratory. Wash your hands with soap and water after performing all experiments.

5. Be alert and proceed with caution at all times in the laboratory. Horseplay, practical jokes, and pranks are dangerous and prohibited.  Notify the teacher immediately of any unsafe conditions you observe.

6. Observe good housekeeping practices.  Dispose of all chemical waste properly.  Work areas should be kept clean and tidy at all times. Clean up after you’ve finished.

7. Know the locations and operating procedures of all safety equipment including: first aid kit(s), fire extinguisher and eye wash stations. Know where the fire alarm and the exits are located.

8. Know what to do if there is a fire drill during a laboratory period; containers must be closed, and any electrical equipment or gas outlets must be turned off.

**Clothing (All Lab courses)**

9. Each student is required to purchase their own PPE, i.e. gloves or lab coat, and bring them to class.

10. Any time chemicals, heat, or glassware are used, students should wear safety goggles if they do not wear any corrective glasses.

11. Dress properly during a laboratory activity.  Long hair, dangling jewelry, and loose or baggy clothing are a hazard in the laboratory.  Long hair must be tied back, and dangling jewelry and baggy clothing must be secured.  Close-toe shoes and long pants or shirts may be mandated at the discretion of each instructor.

**Accidents and Injuries (All Lab courses)**

12.   Report any accident (spill, breakage, etc.) or injury (cut, burn, etc.) to the teacher immediately, no matter how trivial it seems.

13. If a chemical should splash in your eye(s) or on your skin, immediately flush with running water for at least 20 minutes.  Immediately get the teacher's attention.

**Handling Chemicals /Glassware (Bio 121,122, 114, Biochemistry, Microbiology)**

14.Carefully label each glassware before chemicals are dispensed from the original container. Never remove chemicals or other materials from the laboratory area.

15. Never handle broken glass with your bare hands.  Place broken glass in the designated glass disposal container.

16. Examine glassware before each use.  Never use chipped, cracked, or dirty glassware. Do not immerse hot glassware in cold water.  The glassware may shatter.

**Heating Substances (Bio 121,122, 114, Biochemistry, Microbiology)**

17. Operate a hot plate or Bunsen burner with care and keep it at a designated area.  Take care that hair, clothing, and hands are a safe distance from the hot plate/Bunsen burner at all times. Use tongs or heat protective gloves if necessary.

18. Immediately turn off a hot plate/gas valve (micro only) after use. Heated glassware remains very hot for a long time.  They should be set aside in a designated place to cool.  If you smell gas in the lab, notify your instructor (only applied to Micro lab).

19. Never look into a container that is being heated.

**Microscope Handling (All Lab courses)**

20 Microscopes must be carried upright, with one hand supporting the arm of the microscope and the other hand supporting the base. Nothing else should be carried at the same time.

21. Microscope must be positioned safely on the table, NOT near the edge.

22. The coarse adjustment must NEVER be used to focus a specimen when the 40x or oil immersion lens is in place.

23. When finished with the microscope, the cord should be carefully wrapped around the microscope before returning it to the cabinet.

24. The microscope must be placed upright and in the appropriate storage area.

25. All prepared microscope glass slides are to be returned to their appropriate slide trays; wet mount preparations are to be disposed of properly.

**Dissecting Preserved Specimens** (Bio 226/227, 116, 122, 114, 115)

26. Scraps of the animal specimen or used PPE, including gloves, should be double-bagged and disposed of in regular trash bins.

27. All sharp objects, i.e. scalpel blades, should be disposed of in designated sharp containers.

28. If you have a health condition, e.g. allergy or pregnancy, where you are under a physician’s advice to avoid contact with preservatives, please obtain a physician’s note and meet with your professor to arrange for alternative activities.

**Microbiology**

29. Clean your work area on the lab bench with disinfectant before and after lab work. Wash your hands with antimicrobial soap before and after work.

30. In the case of spills: Report at once to your instructor. Cover spilled material with a paper towel and soak with disinfectant. Leave for 20 minutes. Discard the material appropriately.

31. Disposal of contaminated waste: Buckets with biohazard bags are provided for the disposal of contaminated waste. Discard any material that has been contaminated with bacteria or viruses (e.g. Petri dishes, pipettes, swabs, and test tubes) in the designated buckets. A separate container is provided for the disposal of used glass slides. DO NOT POUR ANY TUBES CONTAINING BACTERIA DOWN THE SINK.

32. Non-Disposable contaminated materials: Some materials are autoclaved and reused. Examples are plastic caps, forceps, and glass screw-cap tubes. Designated containers of disinfectant are provided for these items.

33. Handling Cultures: You must wear gloves when handling bacterial cultures if you have cracks or open cuts on your hands. Students are required to procure own lab gloves. Do not leave Petri dishes open for long periods on the counter. No cultures or culture material may be taken from the lab.

34. Inoculating loops will be hot after they are flamed. Hold them with the insulated handle. Place all loops back in the loop holder in an upright position (not down on the counter).

AGREEMENT

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (student's name) have read and agree to follow all of the safety rules set forth in this contract.  I realize that I must obey these rules to insure my own safety, and that of my fellow students and teachers.  I will cooperate to the fullest extent with my instructor and fellow students to maintain a safe science lab environment.  I will also closely follow the oral and written instructions provided by the instructor.  I am aware that any violation of this safety contract that results in unsafe conduct in the laboratory or misbehavior on my part, may result in my being removed from the lab classroom, receiving a failing grade, and/or further disciplinary action.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_    (Name)                         \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_     (date)

**Physician Consent:**

**Pregnancy in the Biology Laboratory**

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, have discussed my pregnancy with my instructor.

(print name)

My instructor advised me to discuss my pregnancy and the use of certain chemicals, in the biology laboratory with my physician.

*Please check the following:*

My physician did not approve my participation in the laboratory.

My physician approved my participation in the laboratory.

I have discussed the use of chemicals with my physician.

Name of Physician \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Address of Physician’s Office \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_

Please return to instructor.