

Engineering Student Safety Contract – return to Mr. Gibbs

PURPOSE

Engineering is a hands-on laboratory class. You will be doing many projects and activities, which require the use of hazardous equipment and materials. Safety in the classroom is the #1 priority for students, teachers, and parents. To ensure a safe 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 contract must be signed by both you and a parent or guardian before you can participate in the class.

GENERAL RULES

1. Conduct yourself in a responsible manner at all times in the laboratory.
2. Follow all written and verbal instructions carefully. If you do not understand a direction or part of a procedure, ask the instructor before proceeding.
3. Never work alone. No student may work in the laboratory without an instructor present.
4. When first entering the room, do not touch any equipment, chemicals, or other materials in the area until you are instructed to do so.
5. Do not eat food or drink beverages in the room. Do not use laboratory glassware as containers for food or beverages.
6. Perform only those experiments and activities authorized.
7. Be prepared for your work in the laboratory. Read all procedures thoroughly before starting the laboratory experiment.
8. Never fool around in the laboratory. Horseplay, practical jokes, and pranks are dangerous and prohibited.
9. Observe good housekeeping practices. Work areas should be kept clean and tidy at all times. Bring only your laboratory instructions, worksheets, and/or reports to the work area. Other materials (books, purses, backpacks, etc.) should be stored under your chairs or in the classroom area.
10. Keep aisles clear. Push your chair under the desk or table.
11. Know the locations and operating procedures of all safety equipment including the first aid kit, eyewash station, safety shower, fire extinguisher, and fire blanket. Know where the fire alarm and the exits are located.
12. Be alert and proceed with caution at all times in the laboratory. Notify the instructor immediately of any unsafe conditions you observe.

13. Dispose of all chemical waste properly. Never mix chemicals in sink drains. Sinks are to be used only for water and those solutions designated by the instructor. Solid chemicals, metals, matches, filter paper, and all other insoluble materials are to be disposed of in the proper waste containers, not in the sink.
14. Labels and equipment instructions must be read carefully before use. Set up and use prescribed apparatus as directed in the laboratory instructions or by your instructor.
15. Keep hands away from face, eyes, mouth and body while using. Wash your hands with soap and water after working in the laboratory. Clean all work surfaces and apparatus at the end of the experiment. Return all equipment clean and in working order to the proper storage area.
16. Experiments and activities must be personally monitored at all times. You will be assigned an area at which to work. Do not wander around the room, distract other students, or interfere with the laboratory experiments or activities of others.
17. Students are never permitted in the storage areas or preparation areas unless given permission by the instructor.
18. Know what to do if there is a fire drill during a laboratory period; containers must be closed, gas valves turned off, and any electrical equipment turned off.
19. When using knives and other sharp instruments, always carry with the tips and points pointing down and away. Always cut away from your body. Never try to catch falling sharp instruments. Grasp sharp instruments only by the handles.
20. If you have a medical condition (e.g., allergies, pregnancy, etc.), check with your physician prior to working in lab.

CLOTHING

21. Students will wear safety goggles in the laboratory at all times. There will be no exception to this rule.
22. 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 loose or baggy clothing must be secured.

23. Lab aprons have been provided for your use and should be worn during lab activities to prevent stains on your clothing.

ACIDENTS AND INJURIES

24. Report any accident (spill, breakage, etc.) or injury (cut, burn, etc.) to the instructor immediately, no matter how trivial it may appear.
25. If you or your lab partner are hurt, immediately notify the instructor.
26. If chemical splashes in your eye(s) or on your skin, immediately flush with running water from the eyewash station or safety shower for at least 20 minutes. Notify the instructor immediately.

HANDLING CHEMICALS

27. All chemicals in the laboratory are to be considered dangerous. Do not touch, taste, or smell any chemicals unless specifically instructed to do so. The proper technique for smelling chemical fumes will be demonstrated to you.
28. Check the label on chemical bottles twice before removing any of the contents. Take only as much chemical as you need.
29. Never return unused chemicals to their original containers.
30. Never use mouth suction to fill a pipet. Use a rubber bulb or pipet pump.
31. When transferring reagents from one container to another, hold the containers away from your body.
32. Acids must be handled with extreme care. You will be shown the proper method for diluting strong acids. Always add acid to water, swirl or stir the solution and be careful of the heat produced, particularly with sulfuric acid.
33. Handle flammable hazardous liquids over a pan to contain spills. Never dispense flammable liquids anywhere near an open flame or source of heat.
34. Never remove chemicals or other materials from the laboratory area.
35. Take great care when transporting acids and other chemicals from one part of the laboratory to another. Hold them securely and walk carefully.

HANDLING GLASSWARE AND EQUIPMENT

36. Carry glass tubing, especially long pieces, in the vertical position to minimize the likelihood of breakage and injury.

37. Never handle broken glass with your bare hands. Use a brush and dustpan to clean up broken glass. Place broken or waste glassware in the designated glass disposal container.
38. Inserting and removing glass tubing from rubber stoppers can be dangerous. Always lubricate glassware (tubing, thistle tubes, thermometers, etc.) before attempting to insert it in a stopper. Always protect your hands with towels or cotton gloves when inserting glass tubing into, or removing it from, a rubber stopper. If a piece of glassware becomes "frozen" in a stopper, take it to your instructor for removal.
39. Examine glassware before each use. Never use chipped or cracked glassware. Never use dirty glassware.
40. Do not immerse hot glassware in cold water; it may shatter.
41. When removing an electrical plug from its socket, grasp the plug, not the electrical cord. Hands must be completely dry before touching an electrical switch, plug, or outlet.
42. Report damaged electrical equipment immediately. Look for things such as frayed cords, exposed wires, and loose connections. Do not use damaged electrical equipment.
43. If you do not understand how to use a piece of equipment, ask the instructor for help.

WOOD SHOP SAFETY

44. Students will be trained on each machine in the wood shop laboratory.
45. Only trained students are allowed in the wood shop. No exceptions.
46. A separate test and contract will be given on the equipment and safety procedures in the wood shop before students are allowed to use the equipment.
47. Safety glasses are to be worn at all times in the wood shop and the outdoor work area behind the wood shop.
48. Horseplay is strictly forbidden in the woodshop.

QUESTIONS

49. Do you wear contact lenses?

YES NO

50. Are you color blind?

YES NO

51. Do you have allergies?

YES NO

If so, list specific allergies _____

**Engineering Safety Contract
Mr. Gibbs**

STUDENT

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 instructors. I will cooperate to the fullest extent with my instructor and fellow students to maintain a safe 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 being removed from the laboratory, detention, and/or receiving a failing grade.

 Student signature

 Date

PARENT OR GUARDIAN

Dear Parent or Guardian:
 We feel that you should be informed regarding the school's effort to create and maintain a safe science classroom/laboratory environment. With the cooperation of the instructors, parents, and students, a safety instruction program can eliminate, prevent, and correct possible hazards. You should be aware of the safety instructions your son/daughter will receive before engaging in any laboratory work. Please read the list of safety rules above. No student will be permitted to perform laboratory activities unless this contract is signed by both the student and parent/guardian and is on file with the teacher. Your signature on this contract indicates that you have read this Student Safety Contract, are aware of the measures taken to insure the safety of your son/daughter in the science laboratory, and will instruct your son/daughter to uphold his/her agreement to follow these rules and procedure in the laboratory.

 Parent/Guardian Signature

 Date