

GENERAL SAFETY RULES
SAN JOSE STATE UNIVERSITY
DEPARTMENT OF AVIATION AND TECHNOLOGY

For All Classes in IS Labs

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1. Safety glasses must be worn in the laboratory at all times. Safety glasses may be acquired in the bookstore or elsewhere if you prefer. Buy the highest quality safety glasses you can find; you are protecting your eyes.
2. Your feet must be protected by sturdy shoes. Open-toe or sandals are not permitted.
3. Any oil spill, coolant, or other fluid spill must be removed from the floor immediately. Use paper towels, wiping cloth, or a mop.
4. Long hair poses an extreme safety hazard around machine tools, and, therefore, must be netted for safety.
5. Use a brush (table brush or paint brush) to clear chips from machine tools; do not use your hands, or a rag.
6. Rags must be kept clear of the rotating parts of machinery. If for any reason a rag gets caught in a machine, switch off the machine and stand clear of it until it comes to a complete stop.
7. All soiled rags must be stored in the covered metal containers provided.
8. Remove burrs/sharp edges from parts immediately after they are machined to avoid cuts on your hands. In addition, parts with burrs or sharp edges will receive reduced credit when evaluated for grading.
9. Watches and rings are to be removed during lab periods. Do not leave your watch or rings on the table in the classroom or on the sink.
10. A shop apron or shop coat is recommended to protect your clothing. Shirt sleeves are to be either short, or rolled up above the elbow. Loose sweaters and jackets are to be removed.
11. All machine and work piece motions (including grinding spindles) **MUST BE COMPLETELY STOPPED** before you reach in and touch or measure a work piece or a machine component.
12. All personal belongings should be locked up in your locker. See the Central

Services technicians for a locker assignment.

13. Do not permit layout fluid to get on the machines, cabinets, floor, or yourself. It is practically difficult to remove.

14. Do not remove any guards or shields from any piece of equipment.

15. If any equipment is found to be in repair, report it to the instructor immediately. Do not attempt to use the equipment or repair it.

16. Students must clean the machines and area used during lab periods. Equipment must be returned at the close of the lab period. Students must sign out for any instrument, tool, or material they check out.

17. NO ONE IS PERMITTED TO LEAVE THE LABORATORY UNTIL EVERYTHING IS CLEANED UP AND PUT AWAY. ANYONE LEAVING WILL RECEIVE A REDUCTION IN HIS OR HER FINAL GRADE.

18. Students will be held financially responsible for breakage or damage due to their own negligence or abuse.

19. Check machine speed setting before starting machine to assure spindle is not started at an unsafe speed.

20. Do not operate any machine tools unless you are thoroughly familiar with it.

21. Do not leave a machine unsafe for the next operator. Turn the power off when leaving a machine for an extended period.

22. It is very unsafe to use gloves while operating rotating machinery.

23. Cover ways on equipment while sanding or grinding.

24. Work must not be held by hand when drilling. Clamp it properly and securely.

25. Do not attempt to lift heavy work. Use help, hoist, or shop lift.

26. It is the responsibility of the operator to remove all chips, oil and residue from their machine, including the chip pan at the end of a shift, or when he/she is through using the machine. (No machine shall be left dirty for the next operator). Chips around a machine will be swept up and kept to a minimum by the operator. When cleaning a machine, use only a brush, rag, or towel. USE OF HIGH PRESSURE AIR FOR CHIP REMOVAL OR MACHINE CLEANING IS PROHIBITED. Don't alter OSHA approved air nozzles. Practice good housekeeping. Please report violators to responsible supervisors.

27. Do not dispose of oily paper towels, rags or other rubbish in chip receptacles. These trash items should be stored in the designated receptacles as follows:

- a) Put all metal chips in the designated chip receptacles.
- b) Put all trash (paper and other rubbish) in the designated trash receptacles.
- c) Store oily rags in the designated steel oil rag receptacles.
- d) Unused and scrap materials should be stored in the designated stock material rack.
- e) Broken tool bits and cutters should be given to the instructor for proper storage and disposal.

28. A dirty shop means accidents. Do not leave waste material or refuse lying around. Places are provided for storing them. Do your part to keep the shop clean and safe.

29. Protect your workmen around you from possible injury from the carelessness on your part.

30. Never attempt to make electrical repairs. Ask your supervisor for approval.

31. PRACTICAL JOKES, HORSEPLAY, THROWING OBJECTS, AND AIR HOSE GAMES ARE PROHIBITED.

32. Report any unsafe or hazardous conditions to your supervisor.

33. Do not alter or modify any machinery, tooling or accessory unless you contact a supervisor and obtain permission.

34. Smoking, eating food, drinking beverages, running or acting in a manner that might produce unsafe conditions, are prohibited in all laboratory and classroom areas.

35. Students must observe safety precautions governing laboratory activities as outlined by the instructor. Safety hazards should be reported to the instructor as soon as possible. Students should not run around in the laboratories nor act in a disorderly manner during lab periods.

36. Students will read and understand the safe practices section of each unit assigned in the text.

37. Nearest telephone for emergency: Blue Phone down the hall near Room 119. Nearest fire alarm box: on the wall across the hall. Nearest fire extinguisher: next to door going out to the hall. Nearest first aid box: next to washbasin.

38. All rules governing foundry activities as outlined by the instructor must be followed.

39. All rules governing woodworking activities as outlined by the instructor must be

followed.

40. A sheet metal is any flat, thin (less than ¼” thick) metal that normally is supplied in sheets or coils. Sheet metal edges are sharp and have burrs. To avoid accidents and injury care and precautions should be followed when working with sheet metal in our lab.

41. Always wear a pair of protective gloves when carrying or handling large pieces of sheet metal.

42. Always use an aid or helper when loading and unloading large sheets of metal on the squaring shear machine.

43. Never sand or grind a piece of sheet metal on any motorized machine as the thin piece can be snatched and forced into the gap between the wheel and table.

44. Use a file to remove burrs and sharp edges from sheet metal.

45. Use a punch to make holes in sheet metal before folding. Use a drill as a last option.

46. Use the spot welding machine for welding sheet metal. Other welding machines can prove to be very time consuming, more demanding in skill requirements, etc.

47. Use a brush or wear gloves when gathering sheet metal scraps during cleanup.

48. Use helms or other appropriate folds to protect individuals from getting unnecessary cuts from the edges of your product.

49. Square or rectangular holes can be punched with a combination of punch, nibbler, and file.

50. Always wear protective shields/goggles when welding, sand blasting, or using any motorized equipment.

51. Do not grind soft metals such as aluminum and lead on a pedestal grinder.

I CERTIFY THAT I HAVE READ AND THOROUGHLY UNDERSTAND THE PROVISIONS OF THIS SAFETY HANDOUT.

(PRINTED NAME)

(SIGNATURE)

(DATE)