GENERAL LAB SAFETY

1. There are no stupid questions! This is a collaborative environment and as such, questions will always benefit the whole lab.
2. When entering G15A, and depending on what tools are in use, eye protection, hearing protection, and dust masks may be required. Refer to door signs for more information.
3. **Permission is required** every time you come in to use wood working and power tools. You MUST check in with the lab manager before starting work with any of this equipment.
4. All injuries, accidents, and spills must be reported immediately to the lab manager, no matter how small.
5. If in doubt as to a proper or safe procedure, stop work and ask for guidance.
6. Report unsafe or hazardous conditions wherever noted. If possible and safe to do so, correct them.
7. **NEVER work alone in the lab outside of posted regular hours, or when the lab manager is not present!** Exceptions exist for starting or finishing 3D prints on the FDM and resin printers, laser cutter usage, as well as small, unpowered projects at the work benches.
8. **Before you turn on a machine**, be knowledgeable about procedures and safe-guards; Know where emergency shut-offs and power cut-offs are located for each machine.
9. **Before starting a piece on a wood working machine, CNC mill, or with power tools**, have your set-up checked by a qualified person
10. Open-toed or open-heeled shoes are not allowed in the lab. **DO NOT** wear loose or torn clothing, neckties, necklaces, or other hanging pieces. Tie back long hair, as it can easily become caught in machines and pull you into them. Prevent clothing from being caught in moving machinery.
11. Rings, watches, bracelets, and necklaces, are to be removed before working with any of the equipment in the space. These pieces can be easily caught in machines, as well as promote electrical shock.
12. Use the tools for their intended purpose only. For example, do not use a screwdriver as a chisel, or a wrench as a hammer.
13. Always inspect tools before use to ensure they are in good, working quality with no signs of damage. For example, sharp blades are safer than dull ones and will speed up your work. Cracked cases and damaged cords can increase the risk of fires and electric shock.
14. **Abide by all lock-out signs on equipment.** If a piece of equipment is locked out, it may not be used. If you need access to a machine urgently, contact the lab manager and they will attempt to escalate repairs, or search for other accommodations for your work.
15. **NEVER** cut or work toward any part of yourself and **ALWAYS** ensure you know exactly where your fingers are! Do not place them under or behind the piece that you are working on where you cannot see them!!
16. Never use fingers or hands to remove dust and debris from moving or stationary machines. Use a long-handle brush instead.
17. Never direct a stream of compressed air at yourself or others. Ensure that compressed air lines are off before switching lines to another machine.
18. Never adjust a moving or rotating machine unless motion is necessary to make adjustments. ALWAYS allow the machine to come to a **complete** **stand still** before changing a part, making adjustments, or repairs. See specific machine standard operating procedures for details.

1. Approach all powered machinery and equipment as though it is turned on. **NEVER** leave a machine running while unattended. Be aware that some machines are nearly silent and may seem to be still when running.
2. Do not attempt to slow down or stop rotating or moving equipment with hands or tools.
3. Remove all non-essential tools, tooling, and materials from machine surfaces and work areas prior to turning the machine on. Vibrations can knock these materials into moving or rotating equipment.
4. Machined and sheared metals, plastics, and wood often have very sharp edges. Use caution when handling these. Sand down edges when possible.
5. **NEVER use gloves when working with power tools, wood working tools, and CNC mills or other moving or rotating machinery.** Gloves have the potential to be caught on moving parts and can pull you into the machine.
6. Always ensure your work piece is securely fastened in place before beginning work.
7. Ensure that all tool interfaces are cleaned before mating them. This ensures a tight connection and prevents the tool from coming loose during operation.
8. **NEVER** leave the chuck key in a drill chuck. **FAILURE TO DO SO MAY GET YOU BANNED FROM THE SHOP.**
9. Soldering and related processes have the potential of causing toxic fumes, burns, fires, or electric shocks if not properly executed. Be sure to read standard operating procedures and follow all safety guidelines.
10. **NEVER** work on live circuits or circuits with charged capacitors. Be sure to discharge all capacitors before proceeding. If you have questions on how to do so, please ask the lab manager or other qualified persons.
11. **Permission is required** from the lab manager to work on circuits with voltages higher than 30V (DC or AC).
12. When testing circuits with oscilloscopes, digital multimeters, power supplies, etc. ensure that the set-up is fully hooked up before turning on the power. DO NOT touch any metal part of the probe leads, supplied power leads or the circuit under test until the device has been fully powered down again. Keep fingers behind guards.
13. Use appropriate respiratory protection with the proper fitting procedures when using power tools and wood working tools to ensure protection from sawdust.
14. Never use a file without a handle installed. File sets are each equipped with a single handle.
15. **ALWAYS concentrate** on the operation you are performing at hand. Do not talk on your cell phone or allow yourself to be distracted while operating equipment.
16. Do not bring food or drinks into any laboratory or shop space. Spilled drinks may promote electric shock, damage to equipment, or even a slipping hazard.
17. Use proper technique when lifting, moving, or carrying loads. Ask for assistance whenever needed to distribute loads and avoid strains. For heavier pieces and anything more than a few feet, use carts to move objects.
18. **Keep all walkways free of obstacles.** Do not place any objects or materials in walkways or passageways. Watch for those that may be present and address when found or alert the lab manager.
19. Know the location of fire extinguishers, emergency exits, and first aid kits.
20. **Be aware of emergency procedures** such as:
    1. Call 9-1-1. If done by cell phone, let them know that you are located on the University of Washington and be sure to include exact location. If calling from a local UW phone line, you will be immediately connected to UW dispatchers.
    2. If the space becomes unsafe, leave via the nearest exit and move away from the building.
    3. Report any emergencies to the lab manager as soon as it is safe to do so.