The Machine Shop by its very nature is a dangerous environment. Many people have been injured and even killed in machine shops doing seemingly benign tasks.

Safety must be your primary concern when using the Machine Shop.

Good safety practices will ensure a productive and safe project for everyone.

In addition to the General Shop Safety rules, there are many Machine Shop specific rules and regulations.

Knowing and following these rules will help to ensure your safety.
• You must ask the Machinist EVERY TIME you wish to use a machine in the shop or borrow a tool.

• If you are doing research work (not for credit), you will need a request for services form from the office before you can start working. These forms need to be renewed every month.

• You need to have 2 copies of an approved drawing before you start your work. These can be from a CAD system, or hand drawn on an approved template (available on the Student Shop website).

• The shop is for U.of D. projects only.
There is a three strikes and you are out policy in the Student Machine Shop.

1. The first warning for safety and/or housekeeping violations is verbal, and your name, date, and infraction will be written on the board by the door.

2. The second warning is written. Both you and a supervisor will sign the form, and you will get a copy.

3. The third violation will result in your shop privileges being revoked for a period of time, depending on the violation.
• After a job is set up, a Machinist must check your setup before the machine is turned on.

• Clean up your machine and work area after use. The machine and area should have ZERO chips, and cutting fluids, etc. should be wiped up.

• ALL tools must be put away. If you don’t know where a tool goes, ask a Machinist or other shop personnel. Last resort is to put the tool on the desk outside the office door.

• All measuring tools must be in their cases at all times unless you are actively using them.

• You must get permission from a machinist before entering the tool room.

• To borrow tools from the shop, ask a Machinist and Sign the tool out. When you bring it back, tell the Machinist and sign it back in.

• Milling Machines, Lathes, and Welding equipment MUST be reserved in advance using F.O.M.

• NO dangerous materials will be machined in the shop (flammable or toxic metals, fiberglass, carbon fiber, etc.)

• All excess materials returned to stock must be deburred.
• Cell phone use is prohibited in the shop.

• The eye wash and safety shower are in front of the Machinist’s office door.

• Emergency phones are located in the Machinist’s office, and in the hallway outside the shop door. Do NOT call 911 on your cell phone. UD 911 will respond faster.

• Fire extinguishers are located on the back wall by the roll up door, next to the side door by the sink, on the front wall in the welding area, and by the panel saw. There are also type D extinguishers (for burning metal) on the wall by the mills and lathes.

• In the event of fire alarms or other evacuations, the meeting place for shop occupants is by the steps between Spencer Labs and DuPont Hall.

• Flammable materials must be kept in the flammables cabinet.

• Use chip brushes or chip hooks to remove chips-chips are sharp and hot. DO NOT use your hands to pick up or move chips!
Do not leave chuck keys in the chucks of Lathes, drill presses, or milling machines. The chuck keys can be thrown out with great force if the machine is turned on.

This also applies to wrenches used to tighten tools into the spindles of milling machines.

The rule in this shop is do not take your hand off the chuck key or wrench until it is put away.

If a chuck key or wrench is left in the chuck unattended or if the machine is turned on with the key or wrench still in it, you will be expelled from the shop immediately.

Only one person at a time should be operating a machine.

Do not disturb or startle anyone who is running a machine.

Full concentration is required!
Go over the following Safety checklist before operating a machine:

1. Am I familiar with the operation of this machine?
2. What are the potential hazards Involved with using this machine?
3. Are all required safety guards in place?
4. Are my procedures safe?
5. Am I doing something that I probably shouldn’t do?
6. Have I made all the proper adjustments and tightened all locking mechanisms?
7. Is the workpiece properly secured?
8. Do I have the proper safety equipment?
9. Do I know how to turn off the machine quickly if necessary?
10. Do I think about safety in everything I do?