

Student Machine Shop Agreement

The Physics student shop is a valuable resource that gives students, faculty and staff hands-on access to major machine tools, including two milling machines, 2 lathes, a grinder, a drill presses and a range of other bench and hand tools. The student shop course, which students must complete before being granted access to the student shop, relies on these tools to function.

Operation of the student shop requires that users accept much of the responsibility for equipment maintenance and clean up. If users do not help to maintain the student shop, the shop is a less useful resource to general users. It also becomes difficult to run the student shop course (listed in the course catalog as a 2-credit hour course!). If you find any machines that need repairs or if you have suggestions to improve the student shop, please contact mshop@phys.ufl.edu

The use of machine tools carries with it an intrinsic risk of injury to the user. Consequently, students may only work in the shop if they have satisfactorily completed the student shop course. Use of the student shop is restricted to projects that benefit the research labs in the Physics Department.

All students, faculty and staff who desire permission to work in the student shop must understand, and agree to follow, all rules of the shop – and especially the safety rules below. Your signature on the form below is your agreement to abide by the shop rules and to follow any additional instructions from machine shop personnel.

Shop Safety Rules

Working with machine tools carries inherent risks which must be carefully considered by an individual. In working with machine tools the potential exists for injury, loss of sight, limb or life. Skilled machinists have been known to retire with missing fingers or limbs. While training and careful operating practice can minimize such risk, the danger of injury is nevertheless present. In some cases such danger may even come from flying parts ejected from an adjacent machine. Use of the student shop is restricted to those individuals who agree to follow procedures that minimize the chance of injury to self and others.

Safety Glasses

EVERYONE MUST WEAR SAFETY GLASSES IN THE SHOP. Even when you are not working on a machine, you must wear safety glasses. A chip from a machine being used by someone else could fly into your eye.

Clothes and Hair

Check your clothes and hair before you walk into the shop. In particular: IF YOU HAVE LONG HAIR OR A LONG BEARD, TIE IT UP. If your hair is caught in spinning machinery, it will be pulled out, if you're lucky. If you're unlucky, you will be pulled into the machine. NO LOOSE CLOTHING. Ties, scarves, loose sleeves, etc. are not permitted. NO GLOVES. REMOVE JEWELRY. WEAR APPROPRIATE SHOES. No open-toed sandals. Wear shoes that give a sure footing. If you are working with heavy objects, steel-toed shoes are recommended.

Safe Practices in the Student Shop

Be aware of what is going on around you. For example, be careful not to bump into someone while they are cutting with the band saw (they could lose a finger!). Be aware of the location of even stationary tool bits (scraping your arm along a stationary end mill will slice you open quite efficiently). Concentrate on what you are doing. Do not work if you are tired. Do not hurry. If you catch yourself rushing, slow down. Do not attempt to measure a part that is moving. Do not remove chips while parts are moving. Do not let someone else talk you into doing something dangerous. Working alone in the shop is strongly discouraged.

Safe Machining

IF YOU DON'T KNOW HOW TO DO SOMETHING - ASK!

BEFORE YOU START THE MACHINE:

Study the machine. Know which parts move, which are stationary, and which are sharp. Double check that your work piece is securely held. Remove chuck keys and wrenches.

NEVER LEAVE MACHINES RUNNING UNATTENDED! Do not rush speeds and feeds or else you will end up damaging your part, the tooling, and maybe the machine itself. Listen to the machine. If something does not sound right, turn the machine off and report the potential issue to one of the Machine Shop engineers.

CLEAN UP MACHINES AFTER YOU USE THEM! CLEAN YOUR WORK AREA WHEN DONE. A dirty work area is unsafe and uncomfortable to work in. Be careful using compressed air when blowing machines clean around others. This endangers people's eyes and can force dirt into machine bearings (avoid blowing near bearings and bearing surfaces).

Student Agreement: I agree to abide by these student shop rules.

Student Name

Signature

Date

Faculty Endorsement: In my capacity as his/her research supervisor I judge that

Student name _____ has the maturity

to faithfully follow the student shop rules and to behave in a professional manner while using the resources of the student shop.

Faculty Name

Signature

Date