

# **University of Delaware Engineering Student Machine Shop**

**General Shop  
Safety, Procedures  
and Policies**



# Safety Rule Number One



**Safety glasses must be worn in the shop!**

# **Yale student killed when lab machine snags hair**

**By JOHN CHRISTOFFERSEN Associated Press  
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**NEW HAVEN, Conn. — A Yale University student nearing graduation was killed inside a school chemistry lab when her hair was pulled into a piece of machine-shop equipment, school officials said Wednesday.**

# **Other Important Shop Safety Rules**

- Wear closed toe shoes – no sandals!**
- Wear long pants – no shorts!**
- Remove rings, watches, bracelets, necklaces etc.**
- Long hair must be tied back.**
- When using rotating machinery, make sure clothing (sleeves etc.) cannot become entangled in machine.**
- Other rules apply to specific machines**
- No horseplay!**

# Basic Shop Policies

## Project Requirements

- **Bring two copies of your drawing that have been signed by your advisor or professor. Drawings can be hand drawn or drawn using a drawing program (AutoCAD, SolidWorks etc.), but must have a title block similar to the standard template (available on the Student Shop website)**
- **If the project is not for a credit course or a club, you must bring a valid charge form to cover the cost of using the machinery (\$20/hr.).**

# Basic Shop Policies

## Machine Use

- **You must ask the machinist in charge every time you wish to use a machine.**
- **After setting up your job in a machine, contact the machinist in charge to check your setup, speeds and feeds.**
- **After using a machine, clean it up better than you found it. Report a dirty machine to the machinist when you begin using it.**

# Basic Shop Policies

## Tool Storage

**All tools, cutters and accessories should be returned to their proper place after use, however in some cases the student may not be aware where the tool belongs. Ask the machinist in charge where to put it. If the machinist is busy or unavailable, it is sometimes acceptable to put the tool on the end of the office desk near the door.**

# **Basic Shop Policies**

## **Borrowing Tools**

**It is permissible to borrow some tools for use outside the shop. Follow these three steps:**

- 1. Ask the machinist if you can borrow that tool.**
- 2. Sign out the tool on the sign out sheet near the office door.**
- 3. Tell the machinist that you have returned the tool, and sign the tool back in on the sign out sheet.**



# Basic Shop Policies

## Injuries

- 1. Report all injuries, no matter how minor, to the machinist in charge.**
- 2. The machinist will arrange for appropriate medical treatment.**
- 3. If outside treatment is needed, an accident report will be filled out after the situation is resolved.**

# Shop Resources

## Steps to qualify to use the Student Machine Shop

1. Watch this presentation.
2. Attend the General Shop Safety Demo in the Student Machine Shop (unless this presentation is delivered in class).
3. Take the **Basic Shop Safety Test** on the [EH&S online training site](#) and score 100%.

# Shop Resources

**What tools and machines will you be allowed to use after completing this training?**

- 1. All common, non-power hand tools (wrenches, hammers, handsaws, measuring and layout tools, taps and dies etc.**
- 2. Portable power tools like drill motors, jigsaws, circular saws etc.**

# Shop Resources

**What tools and machines will you be allowed to use after completing this training?**



**The Vertical  
Bandsaw**

# Shop Resources

**What tools and machines will you be allowed to use after completing this training?**

**The  
Horizontal  
Bandsaw**





# Shop Resources

**What tools and machines will you be allowed to use after completing this training?**



**The  
Pneumatic  
Shear**

# Shop Resources

**What tools and machines will you be allowed to use after completing this training?**

**Drill Presses**



# Shop Resources

**What tools and machines will you be allowed to use after completing this training?**



**Stationary  
Belt Sanders**



# Shop Resources

**What tools and machines will you need further training to use?**

## **Milling Machine**



# Shop Resources

**What tools and machines will you need further training to use?**

**Lathe**



# Shop Resources

**What tools and machines will you need further training to use?**

## **Welding Machines**



# Shop Links

**Where does one find more information?**

**[Engineering Student Shop Webpage](#)**

**or**

**E-mail:**

**[snelson@udel.edu](mailto:snelson@udel.edu)**