

Health and Safety Notes

University Chemical Hygiene Officer	Dawn Errede	6-2330
University Chemical Waste Officer	John Wentworth	6-1604
Safety Officer and Lab Coordinator	Greg Nelson	5-9554
Person responsible for laboratory safety	Principal Investigator	
Person who manages laboratory safety in each lab	Laboratory Safety Supervisor	
Safety committee meets about quarterly	Laboratory Safety Supervisors	

The following are regulations required by the federal, state, county and city agencies.

OSHA - Occupational Safety and Health Administration

Lab safety Standard - For educated users of small quantities of chemicals

MERTLA - Minnesota Employees Right to Know Act

You have the right to know the hazards of the laboratory

EPA - Environmental Protection Act

Air and Water Pollution - Enforced by Hennepin County

AEM has adopted safety precautions for experimental lab areas as follows:

1. CHP - Chemical Hygiene Plan
Aerospace specific copy should be located close to the door inside each laboratory. Contains department plan, contacts, references, guidelines.
2. SOP - Standard Operating Procedure
Procedures for storing, handling, and disposing of chemicals specific to each laboratory must be written and filed after the appendices to the CHP.
3. MSDS - Material Safety Data Sheet
Must have for each chemical in the lab.
Filed alphabetically by chemical name in binder located next to CHP copies: 1 for lab, 1 for master binder by room, 1 for alphabetical master binder.
Chemicals may not be ordered unless there is an MSDS in the lab and in the master binder by room
Exception: MSDS may be requested with first small shipment
4. Hazardous Chemical Waste Management
Chemical waste must not go in the trash or down the drain.
Chemical waste must be labeled, stored, manifested, shipped to Hazardous Waste.
5. Training - Safety training is required initially and periodic updates and refreshers are required. Each experimental lab has a designated lab coordinator who will be kept abreast of safety requirements and updates by Greg Nelson and the individual faculty member. See also * on page 14.
Laboratory specific - to be developed and presented by the individual laboratories.

You have the right to work in a safe workplace.

You have the right to expect your co-workers to follow safety procedures.

You have the responsibility to follow safety guidelines.

AEM Policy on Machine and Wood Shop Safety

This policy covers the machine shop and wood shop (located in the second floor hangar area) in the Department of Aerospace Engineering and Mechanics. All students and postdoctoral visitors should recognize that use of the shop facilities are a privilege and not a right. In order to maintain this privilege, students and researchers must follow these policies and, more, continually show that they use the equipment safely. It is always the prerogative of the Shop Facility Manager (Dave Hultman) to revoke the shop privileges of anyone he feels are endangering themselves and/or others.

As part of the effort to enhance safety, a short, hands-on safety presentation will be offered by the department. The chief laboratory scientist (Greg Nelson) will be responsible for designing and offering this presentation. It will consist of an overview of department policies, hands-on instruction of safe operation of the shop facilities and videotape instruction of the use of shop facilities.

ALL STUDENTS AND VISITORS WILL BE REQUIRED TO ATTEND THE SAFETY

PRESENTATION AND DEMONSTRATE SAFE OPERATION OF EQUIPMENT BEFORE THEY CAN USE THE SHOP.

The following policy applies to undergraduate use of both the machine shop and wood shop as part of the Design class.

- 1) All students who use shop facilities must attend the safety presentation
- 2) Use of the equipment in the shop after hours is strictly forbidden. Students may use the assembly area in the wood shop after hours; however more than one person must be present, and either the Shop Facility Manager or the chief laboratory scientist must be notified when such work will take place.
- 3) Use of the table saw, band saws, joiner and drill press is forbidden
- 4) Student **MUST** submit a request to Shop Facility Manager or the chief laboratory scientist before they use shop facilities

The department will provide a panel saw in the wood shop in order to partially ameliorate the loss of table saw privileges. In addition some shop time will be provided for trained personnel to operate the table saw, etc. It is recommended that each design group be given a budget (play money) that they can use for this; this has the advantage of being a way to include engineering economics in the design experience.

The following policy applies to graduate student and other researchers using both the machine shop and the wood shop.

- 1) All students and researchers who use shop facilities must attend the safety presentation
- 2) Use of the shop after hours is strongly discouraged. If work needs to be done after hours, the user MUST be in the company of another qualified user at all times. Further, the after-hours use of the shop needs to be justified to the satisfaction of the Shop Facility Manager (Dave Hultman), Department Head or Associate Head, and the Shop Facility Manager must be notified when such work will take place.
- 3) The table saw, band saws, EDM, joiner and drill press will not be available for general use. People who wish to use this equipment must be specially trained and approved by the Shop Facility Manager. In addition, the table saw will be kept locked. (**NOTE: The intent here is to prevent unauthorized use, and the key system has yet to be determined. Some ideas are a combination lock, or providing each research lab with a key.**))

Failure to obey these rules will result in a loss of shop privileges.