

# Shop Safety & Machine Guarding Policy

## Description

## OBJECTIVE

The objective of this policy is to establish safe work practices for faculty, staff and visitors using machine, carpentry and fabrication shops located at and/or affiliated with the University of Florida. Safety guidelines and training requirements designed to minimize the risk of injury are provided in the policy. The policy does not apply to student uses of academic program affiliated shops which are covered under a separate Student Shop Safety Policy

## AUTHORITY

By authority delegated from the University President, the Vice-President for Business Affairs is responsible for the safety of all University facilities. Under this authority, policies are developed to provide a safe teaching, research, service, housing and recreational environment.

[su\_spoiler style="fancy" icon="chevron" title=" REFERENCE "] Governor's Executive Order Number 00-292; OSHA 29 CFR 1910 Subpart O and 29 CFR 1926 Subpart I

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## POLICY

The Shop Safety and Machine Guarding Policy establishes the minimum requirements necessary to allow for the safe use of various shops located at the University of Florida by faculty, staff and visitors. The policy covers all University of Florida machine shops including but not limited to carpentry, HVAC, plumbing, printing, engineering, fine arts, theater and museums.

## RESPONSIBILITIES

[su\_spoiler style="fancy" icon="chevron" title=" ENVIRONMENTAL HEALTH AND SAFETY(EH&S) "]

- will establish and post the safety policy pertaining to the use of machinery and machine guarding. Questions concerning policy exceptions or clarifications must be directed to EH&S for review and comment before initiating at the shop level.
- will periodically conduct safety audits of all shop locations.
- has final authority over all safety issues and may immediately halt any operations or procedures it considers unsafe at any time at its discretion.

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- The PI and shop supervisors are responsible for enforcing the provisions of this policy including the provision of required training and personal protective equipment for those using shop

equipment.

- Shop supervisors must keep required machine guards in place and remove damaged equipment from service.
- Shop supervisors have the authority to halt unsafe operations at any time and to restrict access to a shop to any individual or group violating the provisions of this policy.
- Shop supervisors are responsible for providing required personal protective equipment (PPE) and enforcing its correct use.

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- All those using a UF shop are expected to follow all safety requirements as presented in this policy and as posted within each individual shop.
- All users must receive required training prior to working with any power tools, woodworking equipment or other shop related equipment.
- All users must properly use any required personal protective equipment while working in a shop.
- All users must abide by any individual shop restrictions (i.e. hours of operation).
- Any injury as well as any unsafe conditions, actions or near-miss incidents must be reported to the shop supervisor.

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## **PROCEDURES**

[su\_spoiler style="fancy" icon="chevron" title=" GENERAL SHOP SAFETY RULES "]

- All projects must be approved by the shop supervisor.
- Never work alone.
- At least two people must be present when power tools are in use.
- No horseplay is allowed.
- The use of personal electronic equipment including using ear buds or headphones is not allowed while working in a shop.
- The playing of loud music is not permitted.
- Never work while impaired.
- Never use any tools or machinery without first receiving training.
- Never remove machine guards.

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- Always wear appropriate eye protection.
- Always wear closed toe shoes.
- Always wear hearing protection when working with or around power tools or other machinery.
- Keep long, loose hair restrained and securely tied back to prevent machine and tool entanglement.
- Secure or remove loose clothing that can potentially get caught in power tools or other shop appliances.

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- Food and beverages are allowed only in designated areas.
- Maintain good housekeeping by regularly cleaning work areas. Floor areas must be kept free of

debris and other hazards that may result in slips, trips or falls.

- Always use the dust collection system, if one is available.
- Report all damaged tools and devices to the shop supervisor.
- Never use compressed air to clean clothing or hair. Never aim a compressed air discharge at another person.
- If compressed air is used to clean equipment, the discharge air pressure must not exceed 30 psi.

#### [/su\_spoiler] [su\_spoiler style="fancy" icon="chevron" title=" MACHINE GUARDING AND ELECTRICAL SAFETY "[

- Guards on stationary machines and portable power tools must never be disabled or removed.
- Portable power tools must be inspected prior to use for defects such as disabled guards and electrical cord issues and removed from service as necessary.
- All newly purchased power equipment should have required guards installed by the manufacturer.
- Older equipment or equipment without factory installed guards should be retrofitted with the appropriate guards.
- Guards are required to remain in place during equipment operation.
- Machines designed for a fixed location must be securely anchored to prevent walking or movement of the machine while in operation.
- Benchtop machines (i.e. grinders, drill press) must be securely anchored to prevent movement while being used.
- Fans within seven feet of the floor must be guarded to prevent contact with the fan blades. Fan guards must have openings no larger than ½ inch.
- All machinery must be installed according to the manufacturer's requirements and according to the National Electric Code (NEC).
- Portable power tools must be double insulated or be appropriately grounded when in use.
- Machine controls must never be wedged to allow continuous operation.
- Control switches must be located within easy reach of the operator at his/her operating position.
- On/Off controls must be easily identifiable.
- Electric power tools should always be disconnected from outlets by pulling the plug rather than the cord.
- Equipment must be allowed to come to a complete stop before adjustments are made or service is performed.
- The requirements of the University's Hazardous Energy Control (Lock Out/Tag Out) Policy) must be followed for anything more than minor/routine equipment service.

#### [/su\_spoiler] [su\_spoiler style="fancy" icon="chevron" title=" TRAINING REQUIREMENTS "[

- Training must be provided before an individual is allowed to work in a shop.
- General shop safety requirements and machine specific training is required to be provided by the shop supervisor to anyone using a machine shop.
- Required training must include the following elements:
  - Information on the hazards associated with a particular machine or piece of equipment.
  - The necessary safety precautions that must be followed when working with a particular machine or piece of equipment including the purpose and function of any guards that are in place.
  - The types and limitations of any personal protective equipment (PPE) that is required to be used in the shop.
  - Limitations of the particular equipment.

- Procedures to be followed in the event of a machine malfunction or damage to the equipment.
- Procedures to be followed in the event of an emergency (i.e. injury).
- Equipment and general shop maintenance and cleaning procedures.
- All training must be documented in writing with the records maintained by the shop supervisor.

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See [Tool Safeguarding and Controls](#) for a resource guide.