

# Project Lab Policies

## A. Introduction

- i. The following lab policies are intended for all users of the Project Lab spaces, including rooms ET 135, 151, 152, 154, and 155. The Project Lab consists of the following spaces:
  1. ET 135: Hot Metals Lab
  2. ET 151 & 152: Lab Areas
  3. ET 154: Tool Room
  4. ET 155: Workroom
- ii. Failure to follow the following policies can result in consequences ranging from a temporary loss of lab privileges, grade penalty for lab assignment, additional lab cleanup due at the end of the quarter, and/or ejection from all Project Lab spaces for the quarter.

## B. Authorization of Lab Use

To gain authorized access to the Project Lab spaces, users must:

- i. Complete ENGD Badge Program Modules in Canvas:
  1. 1<sup>st</sup> Floor Spaces & Expectations
  2. 1<sup>st</sup> Floor General Lab Safety
- ii. Attend in person orientation
  1. Led by lab technician
  2. Cover essential safety protocols
  3. Review lab policies
  4. Schedule training with the lab technician.

## C. Lab Access Times

- i. Standard Access
  1. Monday-Friday, 8:00am-5:00pm
- ii. Extended Access
  1. Additional access may be scheduled by faculty and staff
  2. All “after hours” access will be supervised by appropriate personnel
  3. Some equipment may be unavailable during extended access
- iii. Lab Closures
  1. Occasionally the lab will be closed during Standard Access times.
  2. Closure notifications will be posted on project lab doors and/or posted on canvas.
  3. Lab is CLOSED when either:
    - a. External doors to ET 151 are locked and closed
    - b. “Lab Closed” sign is posted
    - c. Note: Lab is considered closed even if internal lights are on and other doors are unlocked
- iv. Access Rules
  1. No lab work permitted during closed hours
  2. Standard hours may occasionally be restricted

3. Check notifications before planning lab work.

#### D. General Lab Safety

##### i. Safety Philosophy

Every lab user shares responsibility for maintaining a safe environment. Safety depends on both knowledge of proper practices and a conscious commitment to following safety protocols, particularly when using power machinery or handling chemicals.

##### ii. Lab Attire

###### 1. Required Attire:

- a. Long pants covering ankles
- b. Shirts covering mid-drift
- c. Hair ties for long hair
- d. Close-heel/toe shoes

###### 2. Prohibited Items

- a. Neckwear (necklaces outside of shirt, long/loose scarves, etc.)
- b. Extremely loose-fitting clothing

###### 3. Enforcement

Faculty, lab technicians, and/or authorized staff may:

- a. Request dress code compliance
- b. Ask users to change clothing
- c. Deny lab access until attire requirements are met

##### iii. Personal Protective Equipment (PPE) Requirements

###### 1. User-Provided PPE:

- a. Safety glasses (required for all lab users)
  - Loaner glasses available if needed
- b. Lab badges (must be visible)
- c. Personal respirators (when required)
  - Must complete EHS fit check before use

###### 2. Lab-Provided PPE

- a. Heat Protection: Insulated, heat-resistant gloves and arm covers
- b. Chemical Protection: Nitrile and other chemically resistant gloves
- c. Additional Safety Equipment:
  - Ear protection
  - Face shields
  - Dust masks

###### 3. Usage Requirements

- a. Select appropriate PPE for each task
- b. Return lab-provided PPE to proper storage location
- c. Maintain personal PPE in good condition
- d. Ask staff if unsure about PPE requirements

##### iv. Safety Data Sheets (SDSs)

1. Required for: chemical reagents, resin additives, compressed gases, commercial products, other hazardous materials
2. Accessing SDS Information:
  - a. Available through online database

- b. Accessible on all Engineering & Design computers
      - c. Consult before using any chemicals or hazardous materials
    - 3. SDS help us to determine required safety measures, proper PPE, handling procedures, and emergency protocols
  - v. Ventilation Systems & Requirements:
    - 1. General Air Exchange
      - a. Present in main lab rooms
      - b. Provides basic air circulation
    - 2. Welding Ventilation (ET 135)
      - a. Snorkel system for fume extraction
      - b. Must be positioned near welding area during use
      - c. Required for all welding operations
    - 3. Dust Control (ET 151)
      - a. Downdraft table with dust extraction
      - b. Must be activated when table is in use
      - c. Dust masks required during operation
    - 4. Safety Requirements:
      - a. Turn on appropriate ventilation before starting work
      - b. Position extraction systems correctly
      - c. Wear dust masks when using dust-producing equipment
      - d. Keep ventilation systems clear of obstructions
- vi. Food, Drink & Personal Items
  - 1. Food and Drink Restrictions
    - No food or drink allowed in lab spaces
    - Exception: ET 155
  - 2. Personal Items Storage
    - a. Storage lockers available in the hallway outside of the Project Lab
    - b. Lockers are “day use” only
    - c. Use for water bottles, backpacks, and other personal items.
- vii. Storage Policy
  - 1. Project Storage Access
    - Dedicated storage is available for class and research projects
    - Lab technician approval required before use
    - All stored items must be labeled with:
      - Name(s)
      - Project title
      - Expected completion date
  - 2. Storage Duration
    - Remove items by:
      - End of quarter for course projects
      - End of academic year for long-term projects
    - Clean storage area after use

3. Clearance Policy
  - Faculty and staff will clear all storage areas:
    - After finals week each quarter
    - At academic year end
  - Unclaimed items will be:
    - Disposed of
    - Donated
  - No items held beyond clearance dates

viii. Music

1. No headphones of any kind are allowed in the Project lab spaces
2. Music played from phones and speakers is at the discretion of the lab technician and faculty, but should not be a distraction to other lab members

ix. Unsafe Conditions

Report any unsafe conditions immediately to an instructor or technician, especially issues involving:

- Power machinery
- Electrical components
- Ventilation systems
- Chemicals
- Other potential hazards

While we strive to maintain a safe working environment, equipment problems can occur. Your prompt reporting helps us take corrective action and maintain lab safety for everyone.

x. Injury Reporting

1. Report all injuries to faculty or staff immediately, no matter how minor
2. An Accident Report must be filed with Environmental Health & Safety (EHS)

## E. Machine Operation Safety

i. Training Requirements

1. You must complete specific training before using any equipment
  - Faculty and staff will provide access to training modules
  - No exceptions to this requirement
2. Safe operation is mandatory
  - Use proper safety protocols at all times
  - Wear required Personal Protective Equipment (PPE)
  - Maintain safe working conditions
3. Consequences
  - Failure to follow safety protocols or wear PPE may result in removal from the lab

#### 4. Support

- Faculty and technicians are available to provide assistance
- Don't hesitate to ask for help or guidance

#### ii. Basic Equipment Safety

In addition to information posted in the training modules, be aware of the following:

##### 1. Machine Adjustments

- Only staff and trained users may adjust equipment
- If you've never made adjustments before, ask for assistance
- All adjustments must be made with power OFF

##### 2. Safety Features

- Never remove machine guards
- Know the location of emergency stop switches in each lab
- Understand operational procedures before using any machine

##### 3. Before Operating Equipment

- Be sure you have completed the appropriate training modules
- Ensure you understand all safety requirements
- When in doubt, ask questions
- Verify you have proper training for the specific machine

##### 4. Proper Use & Precautions

- Read machine warning signs before operation
- Only lab-approved materials and processes are permitted
- Follow safety guidelines as discussed in training instructions and/or posted at each work center
- Alert lab staff of equipment malfunctions
- Clean up after yourself (reset equipment, return tools to proper location, put all project work away in the appropriate area).

#### F. Lab Tool & Equipment Classification System

**Green:** Students can drop by the lab and use this equipment/tool anytime without supervision. Prior training on equipment/tool is required. Some low risk tools and machines will require specific training such as sheet metal tools, machines, and equipment.

**Yellow:** Students will have been trained on this equipment and their skill level vetted by a lab technician or faculty member prior to use. They may be required to have a manufacturing plan. A technician or faculty member should be in the general area to check in periodically.

**Red:** Students will have been trained on this equipment and their skill level vetted by a lab technician or faculty member prior to use. They are required to have a manufacturing plan that is reviewed by a lab technician. A technician or faculty member will be in the immediate area when the tool is being used.

**Black:** Students will have been trained on this equipment and their skill level vetted by a lab technician or faculty member prior to use. They are required to have a manufacturing plan that is reviewed by a lab technician. A lab technician or faculty member who is responsible for the tool will be present, attentive, and focused on the task at hand when the tool is being used.

## G. Materials Use and Safety

Common materials used in the Project lab spaces include:

- Hazardous chemicals
  - Paints
  - Aluminum
  - Steel
  - Scrap Wood
  - Adhesives
  - Other
- i. Material Handling Protocols:
1. Check-In Requirements
    - All materials must be approved by technician before entering the lab
    - Safety Data Sheets (SDS) must accompany new materials
  2. Labeling
    - Maintain original labels when possible
    - Use lab-provided labels for transfer or reaction containers
    - All containers must be clearly identified
  3. Storage & Disposal
    - Store flammable materials in designated flammables cabinets in ET 152, ET 154, or ET 151.
    - Never dispose of chemicals in sinks or waste baskets
    - Ask faculty or technicians for proper disposal methods if unsure
  4. Safety Precautions for Hazardous Materials
    - Check SDS for required Personal Protective Equipment (PPE)
    - Use proper ventilation when working with:
      - Flammable materials
      - Toxic substances
      - Corrosive materials
      - Oxidizers

## H. Lab Cleanliness

- i. All workspaces must be cleaned before leaving the lab
- ii. All tools must be put away in the proper location
- iii. Leaving a messy and/or dysfunctional workspace may result loss of lab privileges.

- iv. All projects must be stored appropriately in the project storage area. All stored projects should be labeled with your name, project descriptor, and date of use (quarter and/or year)
- v. Projects without the former information may be discarded
- vi. Sinks are intended for water only.
  - 1. Do not allow the following to enter the drain:
    - a. Resins
    - b. Plastic waste
    - c. Plasters
    - d. Automotive oils and other lubricants
  - 2. Lab sinks contain secondary containment pans that should always be used to prevent foreign objects from entering the drain
    - a. If removed for any reason, secondary containment pans should be placed back in sink before next use
  - 3. Ask staff about proper disposal methods for non-water materials