

# **SMFA WELDING STUDIO**

## **POLICIES AND PROCEDURES**

**STUDIO MANAGER: ADAM “LEGS” COWELL**  
**ADAM.COWELL@TUFTS.EDU**

The Welding Studio is a steel-based fabrication shop, open to the entire Tufts community. We aim to support all experience levels and project ideas through curriculum, coaching, and training.

Typical processes include cutting, bending, hot forging, and welding (MIG / TIG / Stick / Gas), but we are not limited to working in typical ways. Our studio and tools have been used for painting, performance, printmaking, animation, and ceramics, sound, etc. We welcome any project, as well as carefully considered experimentation.

This document exists to prepare you for in-person training. Please read carefully and ask questions if anything is unclear. The shop will be a better place with you in it.

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## STUDIO ACCESS

**This is a high hazard studio** - training is required before access is granted. Trainings may take place within a class or by appointment with the Studio Manager. Understanding and signing this document is important, but it is not meant to replace in-person training.

Users may only access the Welding Studio when there is supervision provided by a Studio Manager, faculty member, or Safety Sonitor. ID access is only given to these groups.

You must be appropriately attired to use the studio. See [Shop Attire](#) section for guidelines.

Access to the studio may be revoked if policies are not adhered to. See [SMFA Studio Policy Violation Guidelines](#) for more information.

## TRAINING

If you would like to request access or training, please email the Studio Manager to discuss available times.

Access trainings for the welding studio consist of three parts:

- Safety and Studio Orientation (1 hr)
- Cutting Tools and Techniques (2.5 hrs)
- MIG welding (2.5 hrs)

For those with prior welding experience, a bench test may be completed after attending the Safety and Studio Orientation. You will be tested for competency and briefed on our standard operating procedures. Access will be granted upon successful completion.

Refresher trainings are available upon request, and may be required at the Studio Manager’s discretion.

## SMFA Welding Studio Policies and Procedures

A002 – High hazard studio

Studio Manager: Adam “Legs” Cowell – [adam.cowell@tufts.edu](mailto:adam.cowell@tufts.edu)

## HOURS

Studio hours are **9am to 10pm** unless otherwise stated on posted schedules.

Scheduled classes have priority to use any space or equipment. This includes evening, summer, or weekend classes.

The Studio Team reserves the right to close the studio at any time. We strive to keep the space accessible as much as possible, but maintenance, safety, and staffing issues do happen. **Check the studio door for any notes on closings.**

## STUDIO ETIQUETTE

The artmaking studios at SMFA are communal spaces that are used by many people throughout the day. Each user is responsible for adhering to community standards. This includes:

- Cleaning up after yourself.
- Being respectful of other users’ space and artwork.
- Being respectful of equipment and shared resources.
- Not removing non-stationary equipment or non-circulating equipment
- Avoiding excessive and/or wasteful use of the materials provided in the studio
- Reporting issues to the Studio Manager, faculty, or studio staff in a timely manner.
- Adhering to the Tufts [Code of Conduct](#).

All users are responsible for cleaning up after themselves. The Studio provides bench brushes, a magnetic floor sweeper, and a HEPA vacuum. We do not sweep the floor, as this makes dusts respirable.

It is your responsibility to leave the Welding Studio as clean or cleaner than you found it. **Plan to allot 15-30 minutes for clean-up at the end of your studio time.**

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Do not leave work in a dangerous or precarious state. Sharp edges must be covered or softened. NEVER STORE MATERIALS ON THE FLOOR OR LEANING AGAINST ANYTHING

Tools are shared and cannot leave the Welding Studio. Return them to their spot as soon as you’re finished using them. If you are unsure where something goes, please ask.

Be alert for loose parts, maladjustments, and dull blades. Report any unsafe working condition to faculty, Studio Manager, or Safety Monitor immediately.

## CAPABILITIES, EQUIPMENT, MATERIALS

### PROCESSES & TOOLS

#### Space

- Designated hot work area
- Fixed and articulating ventilation
- Moveable steel tables
- 1 Ton hoist
- Downdraft table
- Stockroom for materials purchasing and project storage

#### Hand tools

- Pliers and vise grips
- Forging hammers and tongs
- Measuring tapes, squares, calipers
- Cordless and corded angle grinders
- Cordless and pneumatic die grinders
- Wall of clamps
- Drills/drivers
- Hand files
- Jigs and fixtures

#### Cutting

- Jump shear
- Beverly shear
- Horizontal bandsaw
- Vertical band saw
- Manual plasma torch
- Oxy-Acetylene cutting torch
- Drill press

- Turret punch

- Mounted bolt cutter

#### Hot processes

- 3 oxy/acetylene stations for cutting, welding, brazing, soldering heating
- Large and small MIG welders
- Multiprocess machines with MIG/TIG/Stick
- Natural gas forge
- 85a plasma

#### Forming

- Ring roller “captain’s wheel”
- 52” Slip roller
- Forming stumps and mallets
- Sandbags
- Arbor press
- Anvils
- Swage block
- 48” box and pan brake
- Foot actuated shrinker/stretcher

#### Finishing

- Burr King belt grinder
- Palm sander and DA sander
- 2” unitized wheels on roloc pad
- Hot wax
- Three enameling kilns
- Rust solution

## MATERIALS

Steel is the material of choice because of its low cost, strength, and ease of use, although we do support other materials such as bronze, aluminum, copper, and stainless steel.

### Available for free in the studio\*

Sanding / grinding / cutting discs

Soap and metal cleaners

Brazing wire

Welding wire for MIG and TIG

Welding gases

Steel scrap

Sanding belts

Nuts and bolts

PPE

Various gages of steel wire

Hot glue

Grommets

Pop rivets

Salvaged mechanical components

### Available for purchase at/through the School Store

Raw materials in steel, aluminum, stainless

Leather gloves

Dremel consumables

Roloc sanding discs

### Purchase online

Specialty sanding/grinding discs

Approved patinas

High carbon steel alloys

Titanium

High strength tubing

\*Free materials are not unlimited. Use but do not exploit.

## SAFETY AND EMERGENCY PROCEDURES

Our studios are designed with your safety in mind. Adequate ventilation and return air systems keep hazardous and toxic fumes from accumulating. In an emergency there is an eye wash station, emergency shower, and fire extinguishers. For your safety you will be provided with personal protective equipment where necessary.

There are certain risks involved in working with tools, equipment, and machinery. If you are attentive and alert to the possible hazards and observe safety rules and precautions, then you can expect to minimize risks.

This document covers our basic safety policies. Expect to learn more tool-specific policies and safe work practices within your class or training.

- Always be alert and observant when using the studio.
- Do not EVER use the studio while intoxicated or impaired. This applies to alcohol, recreational drugs, and even prescription drugs – if your medication insert says to avoid driving or operating heavy machinery, do not use the welding studio.
- If a faculty member, Studio Manager, or Safety Monitor notices you're intoxicated or impaired, you will be asked to leave.
- You must provide a S.D.S. (Safety Data Sheet) for all materials you bring into the Welding Shop. You must carefully read the form to determine the toxicity of the material and then present to the studio manager for approval.
- Before using any material, you must carefully read all directions and safety precautions.
- Solvents, paints containing solvents, and thinners, are not to be put into sink drains.
- Ventilation must be used anytime you are generating heat, sparks, fumes, or dust. Verify your station is on and positioned properly to ensure protection
- Welding screens are to be positioned around your station to protect others from arc flash
- Students can NOT change Oxy/Acetylene tanks, this must be done by a trained staff member.



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- Oil, Grease, and Solvents of any kind must NEVER be brought into the vicinity of the Oxy/Acetylene tanks.

## SHOP ATTIRE

Long hair must be tied back while using rotary machines. Examples of rotary machines are:

Bandsaws

Grinders

Drill press

Headphones, hoodie strings, jewelry and loose long sleeves can get caught in machinery and cause serious injury

Natural fiber clothing is required to prevent severe injury in case of fire  
Synthetic fibers will melt to your skin when exposed to high temperatures  
Long pants are strongly recommended.

Leather shoes are recommended to prevent severe injury in case of fire; NO OPEN-TOED SHOES or high heels.

## IN CASE OF EMERGENCY

In case of injury: the Studio Manager cannot provide first aid, but immediately alert Studio Manager or Safety Monitor who will contact TUPD. If it's more than a small cut, the Studio Manager or Safety Monitor must fill out an Incident Report. If it's a serious emergency, call TUPD immediately **617.627.6911**. Do not wait for Studio Manager or faculty, just call!

In case of fire, alert the supervisor and move to safety. On the SMFA campus, we report fires directly to 911 before calling TUPD.

Note: You are NOT obligated to fight fires of any size. If you have any doubt, do not attempt to fight the fire.

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### PPE

Users must wear personal protective equipment (PPE) while the studio is active.

Leather aprons, coveralls, leather gloves, goggles, welding helmets, and welding jackets are provided as a shared resource.

Earplugs are provided at no cost. Headphones or earbuds are not suitable hearing protection.

Safety goggles **MUST** be worn anytime **ANYONE** is working in the shop. Corrective eyewear must be labeled with ANSI Z87.1 and be complete with side shields to be used as eye protection

### ARTWORK STORAGE

Storage space is limited in the back room. Occupy the smallest possible amount of shelf space. Always label with your name and semester. Once a user has completed a project, they are expected to remove it from studio storage.

The Studio Manager may have to move stored items without notice and is not responsible for the loss or damage of personal property. The Studio Manager clears out storage areas after the end of review boards each semester. Items left unclaimed will be destroyed and discarded.

### TECHNICAL CONSULTATION

Users may contact the Studio Manager via email to schedule a project-specific technical consultation. The Studio Manager will discuss the user’s project objectives, offer advice on technical planning and execution, and direct the user to relevant studio resources. If the user’s objectives appear to exceed their technical ability within the allotted timeline, adjustments may be recommended to project goals.

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Any studio user may request a technical consultation. Users should plan ahead and seek technical consultations in the early stages of their projects to help the Studio Manager provide the best support possible.

The Studio Manager’s hours are generally 9-5:00 Monday-Friday.

## SMFA STUDIO POLICY VIOLATION GUIDELINES

This document outlines the actions which the Studio Team may take in order to keep studio users accountable for not adhering to Studio policies.

### TYPES OF STUDIO POLICY VIOLATIONS

The following types of actions either violate the Tufts Student Code of Conduct or create inequity or hazardous conditions in the studios. Definitions marked by \* are from the Tufts Student Code of Conduct.

- **Cleanup issues:** Disregarding established cleanup procedures, which are shared by studio managers and/or faculty and may be posted in the studios
- **Misuse of equipment:** Using equipment in a way that is potentially harmful to the studio user or is likely to cause damage to the equipment
- **Misuse of consumables:** Using studio consumables excessively or not for their intended purpose
- **Property Damage and Vandalism\*:** Unauthorized conduct that is reasonably likely to or does cause damage, destruction, or vandalism of Tufts property
- **Safety violations:** Disregarding posted signage or instructions from studio managers or faculty or participating in reckless behavior that endangers the studio user or other studio users
- **Theft and Possession of Stolen Property\*:** Unauthorized taking of property or possession of property that a studio user knows or reasonable should know was obtained through theft
- **Unauthorized access/entry\*:** Entering an access-restricted area by circumventing established security procedures (e.g., using another person's credentials, tailgating authorized individuals into a restricted area)
- **Unauthorized removal of equipment from studios:** Taking equipment from one studio to another, or to private studios, without permission from the studio manager.

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- **Violation of other studio policies as stated in the studio-specific policy documents**

## ACCOUNTABILITY ACTIONS

The following steps will be taken when studio users violate studio policies in any of the ways listed above.

1. **First violation:** A reminder letter will be sent to the studio user via email, and relevant faculty may be included in the email. The Studio Team may require studio user to be re-trained, correct the situation, or take financial responsibility, depending on the circumstances.
2. **Second violation:** A notice of warning will be sent to the studio user via email, which the studio user can choose to accept or contest through the Student Conduct Resolution Procedure, facilitated by Student Life.
3. **Any additional violation:** Studio users will receive formal notification of the initiation of the Student Conduct Resolution Procedure. This process may result in formal sanctions above a warning and could include restrictions on studio use and access.