

Forge Conduct and Safety Contract for Students

Failure to follow these rules can result in the loss of forge privileges and/or referral to the student disciplinary system (Honor Board).

Prior to usage of the forge at Olin College, students are required to read and sign this document (maintained by the forge supervisor) as acknowledgement of the information herein.

Note 1: Supervisor refers to either to the Director of Fabrication, Machine Shop Coordinator, or the individual authorized by the manager to oversee the forge.

General Forge Conduct and Safety Rules

- 1.) **Eye protection must be worn at all times when working with and around the forge or in the forge designated space.** This applies regardless if you are actively using the forge or not. Activities of others can affect your safety.
- 2.) **No student is allowed to work on the forge alone.** Period. You must have at least one other person with you. If there is an accident, the other person can call for help and come to your aid.
- 3.) **Russel Zacharias must be notified prior to use of the forge.** Email russel.zacharias@olin.edu before use and again when you are done.
- 4.) **Obtain first aid immediately for any injury.** Report all accidents/injuries to the forge supervisor no matter how insignificant they may seem at the time. This will help us to mitigate hazards in the future
- 5.) **Do not operate the forge if you have not been authorized to use it.** This will protect both you and the equipment from harm. The forge requires specific training and is not to be used unless the forge supervisor grants authorization. See the forge supervisor, not your partner, for proper instruction.
- 6.) **Only Olin students or instructors, or authorized Babson/Wellesley students or instructors are permitted in the forge space.** Keeping the foot traffic to a minimum provides a safer and more comfortable working environment. Advance authorization from the forge supervisor and the director of facilities is required for others to enter the forge space.
- 7.) **No pets allowed near the forge or in the forge space.** Pets are a distraction and become a tripping hazard by free roaming the area. You put yourself and your pet in danger when you bring them near the forge.
- 8.) **Do not attempt to clean or maintain the forge or propane tank.** Contact the forge supervisor if you believe it is in need of maintenance or cleaning.
- 9.) **Do not leave the forge running unattended.** Others may not notice the forge running and be injured or burned.
- 10.) **Do not attempt to move the forge while on the cart.** The forge is in a set position and you can damage it by attempting to move it around. Move the cart, not the forge.

- 11.) **Always keep hands and hair clear of the forge at all times.** Be aware of any open flames in your work place.
- 12.) **Always keep feet and legs clear of anvils and hammers.** These are heavy pieces of equipment. Be aware of them in your workplace and don't break your feet by dropping them on yourself.
- 13.) **Engage feet to take cart weight off casters prior to working on the tool cart.** Hammering and using other hand tools on the tool cart while on the casters reduces the life of the casters and is unsafe as the cart may roll while you are working.
- 14.) **Engage brakes on forge cart prior to use.** Operating the forge while the cart is mobile may lead the forge to roll away... like a mobile eye of Sauron.
- 15.) **You must establish a safety perimeter prior to use of forge and tool carts.** When you work on the carts you are establishing a shop space. When you are in the space, you are in a shop, behave as such.
- 16.) **Double check that tooling and work pieces are properly supported prior to work.** Pieces will be mobile by nature, moving from the forge to the anvil and back. Ensure that you have a firm grip on your piece during your work, don't drop hot metal on yourself or your partner. Ensure that a hammer won't fall off of the cart and onto you or your partner.
- 17.) **Heavy or unwieldy work pieces often require special support or grip to forge safely.** Ask for help if you are unsure if your workpiece requires additional support.
- 18.) **Do not remove the anvil from the cart without prior approval.** If you do acquire approval, ask for help before moving the large, heavy, awkward anvil from its place on the cart.
- 19.) **When working with another person, only one person may operate the forge or anvil at a time.**
- 20.) **Do not lean against the forge cart or the tool cart.** You could burn yourself, or cause the cart to roll away. It's also poor etiquette. If you need a rest, grab a chair.
- 21.) **Do not talk unnecessarily while using the forge or tool carts. Do not talk to others while they are using the forge or tool carts.** Talking is a distraction. Concentrate on the work and the tools at all times, it only takes a moment for an accident to occur.
- 22.) **Be sure you have sufficient light to see clearly when operating the forge.** Well-lit workspaces are much safer and less straining on the operator.
- 23.) **Work at a pace that is comfortable for you.** Rushing will compromise safe working practices along with forge quality and increases the chance of damaging the tools and forge.
- 24.) **Listen to the forge: if something doesn't sound right, shut it down.** Often if the forge sounds abnormal, it is not operating properly. This usually means something is wrong with the gas—inform the forge supervisor immediately.



- 25.) **Loss of keys or card access associated with the forge and the LPB is to be reported to the Babson & Olin Office of public safety and shop supervisor immediately.** This will help us maintain security.
- 26.) **Grinding in the forge area is prohibited.** Period. Only hand files are to be used. All grinding must be performed in the designated, ventilated grinding rooms in the machine shop.
- 27.) **Do not remove tools from the forge area or cart under any circumstances.**
- 28.) **If you do not know how to do something—ASK!** Do not engage in any activity that may have unusual risk. Trust your judgment. Check with the force supervisor if you have any doubts about what you're doing.

Cart Cleanliness Rules

- 1.) **Keep area free of leaves, grass, and other flammable objects.** These present a fire hazard. As the forge space is outside, clear any foreign object debris from the area.
- 2.) **Keep ground free of oil, grease, or any other liquid.** Clean up spilled liquids immediately to the best of your ability.
- 3.) **Store tools and materials in such a way that they cannot become tripping hazards.** Immediately return all excess material to its proper storage space.
- 4.) **Put tools away when not in use.** This prevents loss and damage of tools
- 5.) **Place all scrap in scrap containers or trash.**
- 6.) **Stop work 20 minutes prior to the time you need to leave the forge.** This will provide ample time to clean and replace tools and carts in their proper places.
- 7.) **KEEP THE FORGE AND TOOL CARTS CLEAN AT ALL TIMES:** There is no excuse for a cluttered/messy workspace.

Dress Code

- 1.) **No open toed shoes, high heels, or bare feet.** To provide secure footing, choose shoes with softer soles and stable platforms. Wearing appropriate footwear will help protect feet from falling objects and hot sparks or chips and lessen fatigue. Boots are encouraged.
- 2.) **No loose clothing allowed.** This includes but is not limited to ties, scarves, loose-sleeved shirts. Short sleeves or sleeves rolled above the elbow are preferred.
- 3.) **No shorts, dresses, or skirts allowed when working on the forge.** Burred edges of freshly cut metal are razor sharp. Metal coming out of the forge is extremely hot and can startle or injure the worker.
- 4.) **Remove all jewelry that could be caught on hand tools or heated by forge.** This includes rings, bracelets, and necklaces.
- 5.) **Restrain all hair to above the shoulders.**

- 6.) **Wearing gloves when working with the forge is prohibited.** Gloves can easily become entangled or melt onto hot metal and thus are not allowed.
- 7.) **Synthetic fiber clothing is prohibited.** Synthetic fiber clothing can and will melt to your skin when it reaches a certain temperature. Minimize the risk of serious burns by wearing only natural or non-melt fibers.
- 8.) **Leather Aprons are required for all people in the designated forge area.** Leather aprons will protect you from hot chips and sparks, preventing damage to clothing and persons.

For Emergency Assistance immediately contact Babson & Olin's Office of Public Safety at 781-239-5555

Additional information is available from:

Bruce Andruskiewicz
Master Instructor
Machine Shop Coordinator

Daniela Faas
Senior Lecturer in Mechanical Engineering
Director of Design and Fabrication Operations

I have read and understand the rules outlined in the Olin College of Engineering Force Conduct and Safety Contract for students document. I agree to follow these rules and to exercise responsible behavior.

Print Name _____ Signature _____ Date _____

I certify that this student is safe and competent to work on the Olin College Forge and Tools Carts.

(Daniela Faas, Bruce Andruskiewicz, and one other required)

Daniela Faas Signature _____ Date _____

Bruce Andruskiewicz Signature _____ Date _____

Rebecca Christianson Signature _____ Date _____

Jonathan D. Stolk Signature _____ Date _____

Matthew J. Neal Signature _____ Date _____