SA-EHS Procedures for the Sculpture Studios

A. Studio Awareness

- Any accident requiring medical attention, must be reported to your instructor or the department Safety Officer.
- Only students who have been properly trained during the current semester to use the Wood Shop or Metal Shop tools are allowed to use them.
- Do not operate any tools while under the influence of drugs, alcohol, certain types of medication, or if you feel fatigued.
- The sculpture studios are to be used ONLY by students enrolled in studio art classes, faculty, or staff of the UVA Art Department.
- Students are permitted in the studios only when working on an assigned project. Allow others to work safely and effectively by taking non-shop activities out of the sculpture studios.
- Always check materials for nails, staples, or screws before machining (especially if you are using any material from the Wood Shop scrap pile) as these will cause sparks, damage blades, or injure you.
- Keep all studio floors free of scraps, saw dust, plaster chunks and dust, tools, extension cords, or other art projects while you or others are working in the studios.
- Be alert to unsafe conditions and actions, and call attention to them so that corrections can be made as soon as possible.
- Use of locked out sculpture a tool is strictly prohibited without supervision of trained personnel. These tools are:
  - table saw, radial arm saw, band saw, router, chain saw.
- Above all, please use common sense when working in and around machinery whether machines are in operation or not. Be aware of you surroundings at all times. Safety in the shops in an absolute necessity.
- Become familiar with proper procedures (see sections below) that should be taken when you or someone in the studio is exposed to:
  - Fire / Flammables
  - Chemical Spills
  - Bodily Injury
  - Corrosive Chemicals
  - Power Tools / Hand Tools.
B. Personal Safety & Personal Protective Equipment (PPE)

**Personal Safety (General)**

- No food or drink allowed in the wood shop, metal shop, or plaster studios
- Do not use ANY aerosol sprays of any kind in the drawing studios - work must be done outside in the courtyard either in the spray fixative area or on the sandy ground
- Do not work in the sculpture studios alone. Please work with a classmate
- Keep your work area clean and well lit
- Never attempt to talk to, or otherwise startle a person while they are using power tools
- Never look away from your work when operating a power tool
- Do not use your hands to clear dust or debris off tables or machines, you can get wood or metal splinters or serious cuts. Use the small dust brush or broom
- Do not use the air compressor to blow dust off of your clothes or direct compressed air towards others
- Use the shop vac to remove excess plaster from tables and floors. USE AS A WET VAC to minimize plaster dust in the air
- Do not use spray paint in the sculpture studios - work must be done outside
- Metal or wood finishing, including painting or priming, especially if using aerosols or solvent based products, must be done outside the sculpture studios in an appropriately ventilated area, preferably outside in the courtyard
- Heavy sanding or grinding, must be done outside the clay/plaster studio in an appropriately ventilated area, preferably outside in the courtyard. Do not stand in water, on damp floors or in the rain when working with electrical tools. Keep your hands and tools dry
- Make sure power cords or extension cords will not become caught or tangled in moving parts
- Before welding, cutting, or grinding, make sure you know what type of metal you are working with. Know what types of safety precautions are necessary when working with various metals. Galvanized steel releases harmful fumes when welding, etc. and is not recommended for use unless using mechanical fasteners

**Personal Safety (Tool Use)**

- See section I. Tool and Material Safety Information for the Sculpture Studios for specific tool and material safety
- Know the tool you are working with BEFORE attempting to use it. You must have documented training about the operation and safety of a power tool. Ask a shop supervisor or instructor before proceeding
safety procedures

- DO NOT ALLOW familiarity gained from frequent use of tools to become commonplace. Always remember that a careless fraction of a second is sufficient to inflict severe injury.

- Inspect the tool before each use. Do not use any machinery that appears damaged, has frayed cords, does not start immediately, etc. Notify your instructor or the department technician.

- DO NOT ATTEMPT TO REPAIR ANY TOOLS. Any missing or malfunctioning, or broken equipment should be labeled as such, removed from public use, and reported to your instructor or the department technician.

- Remember the location and keep easy access to the ON/OFF switch you are using so you can turn off the machine quickly.

- Do not use any tool in such a position that the on/off switch cannot be released immediately.

- ALWAYS keep a well-balanced stance as you work with tools. If you have to force the tool or the material, then something is wrong. Stop working and notify your instructor.

- No machine shall be left running unattended. Make sure moving parts have COMPLETELY STOPPED before leaving the area or before making adjustments to the machine.

- Always use sharp tools. Injuries can be worse using a dull tool than using a sharp tool.

- When using hand tools, the cutting action should always be away from your body.

- If a procedure feels dangerous/looks dangerous/doesn’t seem right or you are not sure of how to use a particular tool, DON’T TRY IT! Wait and ask a qualified instructor.

- Work only at full operating speeds. Do not use a power tool before it has reached operating speed or while it is coming to a stop. Never force an object into moving parts to stop a machine.

- Do not force tools. If a tool does not work without force, notify your instructor or the department technician.

- Tool guards must be used at all times.

- Guards should be adjusted accordingly only when the power is turned off.

- Do not remove any safety device or alter them in any way that is not intended for them.
  - Exceptions are made on the table saw for specialty cuts (e.g. dados) where the

- Feather boards should be used when not using the table saw guard.

- Check with the shop supervisor before disengaging the splitter on the table saw.

- Blade heights, tool angles and guards should be adjusted accordingly ONLY when the power is turned off.

- Disconnect tools from power sources when installing new blades or bits to prevent injury from accidental startup.
Do not rest material to be cut on your lap or support the cut line with any part of the body.

Do not use any tool across/through closed areas, which cannot be inspected for electric wires, gas lines, etc.

Do not use tools that might emit sparks in the presence of flammable gas or liquids.

Use the correct tools for the job. Do not use a tool or attachment for something it was not designed to do. Select the correct bit, cutter, or grinding wheel for the material with which you are working.

DON'T BE AFRAID TO ASK SIMPLE QUESTIONS and THERE ARE NO DUMB QUESTIONS WHEN IT COMES TO YOUR SAFETY

PPE for the Sculpture Studios

See also individual tools for specific PPE

Head/Face Protection

- Tie back long hair or wear a hat, as it could become tangled in moving machinery parts.
- Wear a face shield if flying particles are expected during the machining process.

Eye Protection

- The use of safety glasses is MANDATORY when using all power tools.
- Proper eye protection should be worn when doing subtractive work which requires the use of a hammer or chisel.
- Students may purchase their own safety glasses that meet ANSI Z87.1 standards (the glasses will be labeled with this information).
- The appropriate welding goggles/helmet must be worn when working with the plasma cutter, MIG welder, or the oxy/acetylene torch.

Ear Protection

- Ear plugs are provided to students at no cost and should be used while working with power tools.
- Ear plugs are kept in the wood shop cabinet with the goggles.
- Earplugs provided are disposable, but also re-useable. Please keep a pair in your locker.

Protective Clothing

- It is MANDATORY that students wear appropriate clothing while working in the sculpture studios. Working with some sculpture materials is a dirty job. Don't wear your Sunday best.
safety procedures

- Secure any loose fitting jewelry or clothing (roll up long sleeves) that may interfere or become tangled in moving tool parts.
- Do not wear highly flammable clothing. Leather jackets must be worn when working with the plasma cutter, MIG welder, or the oxy/acetylene torch.
- Long pants must be worn while working in the Metal Shop. Absolutely no shorts or skirts. And no pants with cuffs.

Hand Protection

- When working with chisels or hammers, work gloves are helpful in protecting from impact injuries.
- Do not wear gloves when working close to moving machine parts.
- When wearing gloves, be sure they fit properly and are rated for the specific task you are performing.

Foot Protection

- Open toed shoes or slip-on-type shoes (flip-flops, clogs, mules, etc.) are not allowed to be worn while working in the Metal Shop or Wood Shop.
- Students must wear leather top shoes when working with any tools that generate flame or sparks.

Respirators/Masks

- Nuisance dust masks are provided to students and are recommended when performing certain tasks or working with certain power tools in the sculpture studios.
- The clay/plaster studio is equipped with engineering controls to remove plaster dust.
- The Wood Shop is equipped with engineering controls to remove as much dust as possible from certain power tools.
- While the miter saw, radial arm saw, table saw, disc sander, and band saw are all connected to dust collectors, they do not remove all dust from the air and a properly worn nuisance dust mask will help alleviate breathing in excessive.
- While the Metal Shop is equipped with engineering controls to remove as much metal fumes from welding or cutting, and soot from the oxy/acetylene torch as possible tools, a properly worn particulate respirator mask will help alleviate breathing in excessive amounts of soot and metal particles.
- Store your mask in the provided Ziploc bag.
- Do not share your mask with others.
C. Fire Prevention & Safety Equipment

**Fire Prevention**

- Do not leave paper products or other flammable materials on or near work tables when you are working with shop tools that generate sparks, open flames, soldering irons, or the hot plate.
- Wood dust is highly flammable. Please clean up as much of your workspace as possible.
- Please be aware of any ignition sources: frayed electrical wires, propane torches, matches, etc.

**Flammable Storage Cabinets**

- The flammable storage cabinets are designed for storage of flammable or combustible liquids.
- ALL flammable liquid materials MUST be stored in this cabinet and not in student lockers.
- All containers stored in this cabinet MUST be clearly labeled as to the contents.
- All containers MUST have appropriate lids that fit. (ABSOLUTELY no tin foil or plastic wrap can be used for lids).
- Any “unlawful” container will be removed from the storage cabinet.
- See specifically section E. Chemical Labeling, Storage & Waste Disposal below.

**Eye Wash Stations/Safety Showers**

D. First Aid & Emergency Procedures

- In the event of an emergency, remember one number: 911.
- By calling this number, a variety of emergency response departments can then be alerted to your situation.
- In the event of a medical emergency or injury, stop work and notify the shop supervisor immediately. Immediately seek treatment of major injuries by calling 911 or using the Ruffin Hall emergency Phone.
- In the event of a fire emergency, pull the fire alarm nearest you, have someone call 911 (or use the Emergency Phone) and evacuate the building.
- Tell the operator your location and the location of the fire/emergency, THEN EXIT THE BUILDING.
- DO NOT USE A FIRE EXTINGUISHER UNLESS YOU HAVE BEEN TRAINED TO USE ONE. NEVER USE WATER TO EXTINGUISH ANY FIRE.
Review Ruffin Hall Emergency Action Plan for specific evacuation procedures for the sculpture studios.

Be familiar with the location and use of the following safety devices:

- Emergency Phone - one on each floor across from women’s restroom and one across from gallery on 3rd floor
- Safety Shower –
- Eye Wash Station –
- Fire Alarm - there are several pull stations throughout Ruffin Hall
- First Aid Kit - one on each floor across from women's restroom next to emergency phone
- Fire Extinguisher - one on each studio

Clean up all small spills immediately. If a large chemical spill occurs that you are unable to cleanup call OEHS (982-4911)

There is one emergency shutoff located in the Wood Shop. It is located to the right of the door leading to the hallway. This button, once pressed, will turn off all power to all outlets in the Wood Shop.

For specific information please see the UVA-OEHS website section - First Aid & Emergency Procedures.

E. Chemical Labeling, Storage & Waste Disposal

Chemical Labeling & Storage

- When chemicals are transferred from the manufacturer’s original container to a secondary container, that new container must be appropriately labeled as to chemical identity and hazard warning(s)
- ALL flammable solvents (mineral spirits, turpentine, propane fuel, etc.) must be stored in the appropriate yellow safety cabinet
- Storage of solvents in student’s lockers, in/on painting tables or left out in the studio is prohibited
- ALL containers that are stored in the yellow fire safety cabinets must be clearly labeled on the container with the following information if they do not have a manufacturers label:
  - Students name
  - All contents of container
  - Instructors name
  - Current semester
  - All containers must have a lid that fits properly. Absolutely no tin foil or plastic wrap lids, etc.
  - Chemical containers, solvent waste containers, and rag waste containers must be covered tightly at all times when not in use.
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- Yellow fire safety cabinet doors must be kept closed and latched when not in use
- Any container left unopened or unlabeled will be removed from the safety cabinets
- The following people check these cabinets and studios: the UVA Art Studio Tech on a daily basis and UVA-OEHS on a monthly basis
- See also the UVA-OEHS website for more Chemical Labeling information
- !!OEHS will issue violations and/or fines, which can result in studios being closed!!

Chemical Waste Disposal

- Used liquid solvents must be disposed of by pouring them into the plastic carboys provided for that purpose
- These are located in the yellow safety cabinets in either the Print shop or the Painting studio
- These containers must remain capped at all times when not in use. Funnels must not be left in open waste carboys
- Do not wash solvents or oil paints down the sink! EVER!
- Even excessive amounts of water-based paints should not be washed down the sink
- Liquid solvents are never to be poured into the Hazardous Material Containers (the red bins)
- It is illegal to pour ANY chemical or solvent down any drain

Solid Waste

- No trash other than solvent-contaminated rags or paper towels may be put into the hazardous material container (35 gallon black drum with red lid)
- Solvents include:
  - Turpentine
  - Alcohol
  - wood stains, etc.
- Rags containing oil based paint or water based-paint containing cadmium or cobalt must also be disposed of into the hazardous waste container
- Plastic gloves, food, paintbrushes, paper paint pallets (when paint is dry) go into the regular trashcan, not the red hazardous materials container!
- Aerosol cans, which are not completely empty, must be treated as hazardous waste. Please place on the cart labeled “Hazardous waste paint” outside the wood shop, room 122
- Any liquid paint, oil or water-based, to be discarded, must also be placed on the “Hazardous waste paint” cart
Spills of chemicals/waste

- Spills of solvents and excessive amounts of paints should be cleaned up with rags or paper towels.
- Rags and paper towels should then be discarded into Hazardous Material Container.
- Clean up all small spills immediately. If a large chemical spill occurs, more than 1 liter, you must call OEHS at 982-4911.
- See also the UVA OEHS Policy SEC-005 on disposal of hazardous waste and UVA EHS Hazardous Waste Collection Guidelines for Non-Laboratory Areas.

F. Housekeeping

- Students are responsible for cleaning up all areas of the shop they are working in. Even if you need to leave for only a few hours, please store your project(s) on the provided shelves or in your locker and put away ALL tools. You might not return at all, and other students need to use the limited table space we have available.
- Studios should be kept as clean as possible. This doesn’t mean spotless (this is an art building) but trash should be thrown away in the appropriate bins, materials not used - stored in appropriate places, spills cleaned up, etc.
- Place material scraps in the storage areas. Please DON’T SAVE every little scrap of wood, space is limited in the shop.
- The studio should be swept of dust and debris and all tools and materials need to be put back in their designated places at the end of class sessions.
- UVA Fire Code states that extension cords are not permitted for use as permanent wiring. This means leaving any device plugged in (especially when unused) for long periods of time.
- See the University of Virginia OEHS policy on extension cord usage - Section-015.
- All yellow extension cord reels must be unplugged from tools and retracted.
- Orange extension cords must be unplugged from the walls, coiled up, and stored away.
- Do not use the table saw as a work table.
- Please put down paper or cardboard if you will be working with liquid glue or stains.
- Emergency exits, emergency shutoffs, fire extinguishers circuit breakers, and alarm pull stations must be kept free of all projects or materials at all times.
- Aisle ways, hallways, stairs, fire extinguishers, alarm pull stations, exit doors should be kept clear of everything.
- Bicycles MUST NOT be brought into the buildings. Use the bike racks located around Ruffin Hall. Please don’t lock them to the stair or ramp railings outside of the building. The railings are to assist people using the stairs, not hinder them.
Safety procedures

- Pets shouldn't be brought into the building while you’re working. There are many items in this building that could cause serious injury or death if eaten.

- Project Storage
  - Any project wood, metal or other material that is brought into the building by the student should be labeled with their name, instructor, and current semester, unless they are for the entire class, then they should be labeled as such.
  - At the end of each semester, due to the limited amount of space in Ruffin Hall, no projects, or materials are to be left in the studio unless the instructor has given the student permission.
  - At the end of each semester, students will be alerted as to when materials need to be removed from Ruffin Hall. If materials are still in the building after notice has been given, and especially if they are not labeled, they will be thrown out or reused by other students!!

G. After Hours Work

- Do not work alone in the Sculpture studios. Please work with a classmate.
- Working alone in the studio can be dangerous. If you were to become incapacitated or seriously injured no one would be able to assist you or call for help.
- Do not prop open the outside doors to Ruffin Hall at any time. Propping the doors open at night makes the building unsecured and unsafe for others working in the building. REMEMBER TO TAKE YOUR ID CARD if you exit the building after hours.
- Propping exterior doors and studio doors with card reader access will sound an alarm.
- If you are working in the papermaking studio with the garage door open, be sure to close it upon leaving the studio, even for instance, if you are merely going upstairs to the print studios.
- If you “unlock” the door adjacent to the garage door, YOU MUST REMEMBER to “relock” this door when you are done working outside.
- There are 4 doors with card readers for access after hours, one on each floor and one in the courtyard. These doors are automatically unlocked at 8am and locked at 8 pm Monday through Friday. Ruffin Hall is accessible via card reader only on weekends.

H. Safety Data Sheets (SDS)

- SDS will tell you of any special procedures that may be required for the safe handling of a specific substance. If you are taking any medications, if you are pregnant, or if you have a medical condition such as an allergy talk with your supervisor or physician for specific instructions.
- When using SDS you must apply your own good professional judgment to the information that they contain. SDS include information and procedures that usually only apply to industrial settings, these situations will most likely not occur in the laboratory environment.
Even so, SDS are a valuable source of information when you have questions or concerns about any chemical that you work with. It is a good idea to consult the MSDS for any new chemical that is introduced into your work routine, as this is a quick and easy way to familiarize yourself to any hazards or precautions that you should take when working with a new substance. Use your judgment and carefully follow all the guidelines indicated in this document. SDS for Sculpture are kept in room 120.

See also the UVA-OEHS website for more SDS information.