BASIC HEALTH & SAFETY IN MIAD STUDIOS

Basic guidelines and knowledge needed
for working safely in any studio environment

Updated August 2017

STUDENT SAFETY AT MIAD

Students are responsible for knowing the materials and processes they are working with and engaging in safe working practices at all times. Students will receive specialized training through instructors and lab staff and are required to familiarize themselves with this basic handbook on safety. Students not following proper lab procedures or material handling may put themselves or others in jeopardy and risk losing studio privileges.

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This information does not replace other lab safety instruction you will get.

GENERAL SAFETY PROCEDURES & INFORMATION

KNOW YOUR MATERIALS

1. Always read labels on materials and familiarize yourself with hazards associated with materials you're using.
2. Material/ Safety Data Sheets (M/SDS) provide extensive information on:
    - Ingredients
    - Hazards to be aware of
    - Precautions to follow
    - Emergency Procedures
    - Disposal Procedures

    M/SDS information can be found on MIAD's online directory which is accessible via smartphone, tablet, laptop or desktop computer. To access go to MIAD's URL link: bit.ly/miad_msds OR scan the QR code found on the red safety walls throughout the building. Bookmark this link so you have easy access to it.

3. There are three types of hazardous and/or toxic materials:
    a) **POISONS** – These can destroy the health and possibly the life of a person once it is absorbed into their body (ex – printing solvents, powders and dusts, toxic metals like cadmium, cobalt, mercury).
    b) **IRRITANTS and CORROSIVES** – These can attack the exterior of the body and cause irritation and burns, particularly to the eyes (ex – photo chemicals, solvents, acids in printmaking, ceramic slurry).
    c) **FLAMMABLES and COMBUSTIBLES** – These materials can cause fire damage when ignited (ex – solvents, adhesives, thinners, catalysts, paints, some dusts, some welding gases).
4. Know routes of exposure to these chemicals and protect yourself:
    - Inhalation - air quality (ex – use ventilation and/or wear an appropriate respiratory mask).
    - Ingestion - eating and hygiene (ex – do not eat food in the labs and wash your hands after handling any chemicals or materials).
    - Absorption - skin contact (ex – wear appropriate clothing, goggles and gloves).
5. Recognize body responses to these chemicals, both acute and chronic:
    - Respiratory system (lung sensitivity, coughing)
    - Skin (cracking, pealing, burning)
    - Digestive system (indigestions, nausea)
    - Central nervous system (headaches, narcosis, dizziness)

KNOW YOUR PROCESSES, TOOLS, TECHNIQUES and HAZARDS

1. ASK QUESTIONS before using any tools or processes new to you
2. Use ventilation hoods and ducts (local and general exhaust)
3. Use tools correctly and for their intended purpose
4. Substitute less toxic materials when possible
5. Always cut away from the body and DO NOT use dull blades when cutting
6. Always check guard height and use guards when cutting
7. Avoid loose clothing and jewelry, tie long hair back, keep drawstrings and neckties tucked in
8. Be aware of potential hazards that are generated by different processes (ex – impact, heat, flying particles, metal fumes, noise, radiation, ultraviolet light)
9. Work in spaces that are appropriate for the materials you are using (ex - plaster only in plaster room)
10. Be aware of spontaneous combustion (red rag/solvent cans)
11. Never wash hands in solvent
12. No spray paints, fixatives, or adhesives may be sprayed indoors, unless in an appropriate spray booth.
13. Do not use toxic substances or processes that may affect others working in the same space.

KNOW HOW TO PROTECT YOURSELF

1. Follow ALL safety and health precautions.
2. NO food or open drink containers allowed in the studio/lab areas. Eat in designated spaces.
3. ALWAYS wash your hands before eating or smoking and when leaving the studio.
4. Wear protective clothing and use appropriate Personal Protective Equipment (PPE).
    - Aprons
    - Gloves (choose appropriate gloves for materials being used)
    - Goggles / Face Shield
    - Dust masks
    - Earmuffs or ear plugs
    - Respirator (Talk to faculty or lab staff about appropriate respirator use and fitting)
5. Wash PPE separate from other clothing and materials.
6. If you have respiratory issues or are pregnant, please contact the Associate Dean of Students or speak to faculty before working in areas with hazardous materials or processes.

HANDLING HAZARDOUS MATERIALS

1. The sinks may NOT be used to dispose of chemical or paint waste.
2. Use flammable storage cabinets for storage of flammable solvents and mediums (1 pint or more).
3. Allow waste acrylics to dry before disposing in trash. DO NOT dump in sinks.
4. Use red solvent disposal cans and oily rag waste cans for disposal of used flammable liquids and flammable rag materials.
5. All purchased hazardous materials containers must be properly labeled with the container's contents, your name, and the date purchased. Those not labeled correctly will be disposed of.
6. DO NOT use food containers for storage of hazardous materials. All original labeling must be removed from recycled containers. Use HMIS Labels on all secondary containers and write:
    - Contents • Name
    - Date • Hazard rating
7. Read all manufacturers' labels and follow safety precautions.
8. Read and use MSDS sheets (material safety data sheets)
    - Understand chemical ingredients.
    - Follow physical and health precautions.
    - Use first aid emergency procedures.
    - Use proper personal protection equipment.
9. Materials which give off noxious or toxic fumes (spray paint, spray adhesives, spray fixatives) must only be used outdoors, or in designated spray booth areas only.
10. Pastels and chalks should be used with caution. Some contain heavy metals. Use a dust mask.
11. Students working with found objects must be extra careful and make sure they do not contain dangerous substances. Sanding of items with old paint is restricted. (Items painted prior to 1970 are likely to have been painted with lead paint whose particulates can be released during sanding and cause poisoning.) **ANY PAINTED MATERIAL OF UNKNOWN ORIGIN MUST BE TESTED FOR LEAD PAINT BY A 3-D LAB SUPERVISOR.**

FIRE REGULATIONS

1. No smoking indoors, in studios, or anywhere in the building. Smoking can accelerate the toxic effects of some art products.
2. Keep all exit lanes, exits, and walkways clear.
3. Do not hang anything from light fixtures, plumbing or sprinkler systems.
4. No heaters, hot plates, or open flames of any kind.
5. No melting of waxes of any kind unless in designated areas. Waxes give off toxic fumes when heated.
6. Review and know the closest evacuation routes and safe meeting areas.
7. Temporary wiring (extension cords) are not to be used for permanent wiring.
8. Personal appliances are not permitted and no cooking of any kind is allowed in the studios.

SPECIFIC STUDIO, MATERIALS & EQUIPMENT RULES

PAINTING

1. No sinks may be used to dispose of paint waste.
2. Dispose of waste acrylics in trash. Do not dump in sinks. Let acrylics dry before disposing.
3. For oily liquid and solvent waste disposal, use red solvent disposal cans located at designated sinks.
4. Use red fire-rated containers to dispose of oily rags and towels. Do not dispose in open trash containers.
5. ALWAYS turn on the ventilation when working in the studio.
6. Use of turpentine is prohibited. Substitute with odorless mineral spirits (Gamsol) for thinning oil paints, changing colors, or a final cleaning of palette.
7. Use mineral oil or vegetable oil for initial cleaning of oil palettes or brushes. Usually brushes may be cleaned with soap and water.
8. Cover brush-cleaning containers with lid or aluminum foil while standing.
9. Never use solvents to clean your hands.
    - Use Nitrile gloves to protect your hands while oil painting.
    - Use baby oil (mineral oil) to clean your hands before washing with soap and water.
10. Clearly label all cans and secondary containers of mixtures with:
    - Your name
    - Date
    - Contents
11. Use tightly re-sealable containers.
12. Store containers of painting mixtures/ solvents in fire safe cabinets.

PRINTMAKING

1. Do not wear clothing or jewelry that could get caught in the press. Do not wear open-toed shoes. Tie long hair back when working. Keep drawstrings and neckties tucked in.
2. Discard ink/solvent soaked rags in hazardous materials container.
3. Wear PPE as instructed by faculty and Print Lab Technician (acid and solvent resistant neoprene gloves, safety goggles, dust mask, apron, etc.)
4. Should acid be spilled, neutralize with baking soda IMMEDIATELY and contact lab technician and/or instructor.
5. NO food or open drink containers are allowed in any of the print shops. Open containers can absorb solvent fumes even with ventilation. Drink containers with lids are allowed.
6. Do not mix cleaning agents together in the washout room. This can create TOXIC fumes.
7. Acid on skin should be rinsed thoroughly with water. Be sure to contact Lab Tech or Faculty if this happens.
8. Lab Tech permission is needed to use print facilities unless the individual is currently registered in a printmaking course.

PHOTOGRAPHY

1. No food or drink in wet labs or digital labs – ever!
2. Be aware of water. Running water left unattended can cause flooding. Spilled water can cause slips or falls.
3. Learn where the safety wall is and what its contents are.
4. If you remove/use items from the safety wall, let the tech know so that items can be replaced.
5. Let a lab monitor or lab tech know immediately if there is an accident.
6. Be practical and use caution when using electrical equipment.
7. Keep cords and lights away from water/liquid.
8. Only use cords in good working condition. If you find something that is frayed or not working properly, ask for help.
9. Use ladders and step stools properly and with caution.
10. Use the ventilation system when working in the labs. Switch is outside the first darkroom. One switch turns on ventilation in both rooms.
11. See a lab monitor for assistance in the lighting studio and finishing room.

12. Never touch photo bulbs – they are explosive and toxic.
13. Use caution when cutting and trimming prints.
14. Always wear gloves and goggles when mixing chemicals.
15. Lab Tech permission is needed to use print facilities unless the individual is currently registered in a photo course.

SCULPTURE/ 3D-LAB

1. Think safety when planning each step of your project.
2. If you have not been trained, do not operate equipment or machinery.
3. Use personal protective equipment:
    - ALWAYS wear safety glasses
    - Use a dust mask if cutting grinding or sanding.
    - Use a properly selected respirator where toxic fumes may be generated.
    - Use ear plugs or ear muffs when necessary.
4. Practice good hygiene:
    - Wash your hands regularly and before eating and drinking.
    - DO NOT eat or drink in the studio.
5. Do not operate tools while under the influence of drugs, alcohol or medication.
6. Do not work by yourself. Have someone else with you at all times in the studio or lab.
7. Wear proper apparel:
    - Wear protective apron or cover-alls, wash regularly and separately from other clothing.
    - DO NOT wear loose clothing, gloves, necklaces, rings, bracelets, neckties, drawstrings or other jewelry that might get caught in moving parts.
    - Tie back long hair, as well as any drawstrings or neckties.
    - Wear protective hair covering when welding.
    - Non-slip safety shoes are recommended: NO bare feet, open-toed shoes, sandals or high heels.
8. Keep your work area clean and well-lit.
9. Keep guards of power tools in place and in working order.
10. Make sure all tools are properly grounded.
11. Do not use power tools in damp or wet locations or expose them to rain. Electric shock can cause serious damage or death.
12. Before using any chemical product:
    - Turn on the ventilation.
    - Use personal protective equipment.
    - Read the MSDS and check the health rating. Ask lab techs about products.
    - Read the label and follow all directions.
    - Follow all safety and health precautions.
    - Ask questions if you are not sure.
    - Substitute less toxic materials
13. Sandblasting:
    - Students and faculty engaging in sandblasting may only do this in approved areas in the sculpture lab.
    - Those doing sandblasting must wear both eye and ear protection as well as a dust mask.
14. Silica:

    Students, faculty and staff who engage in work within the building that exposes them to crystalline silica, are required to use appropriate personal protection equipment such as dust masks or respirators as well as eye protection and should engage in such activities only where appropriate ventilation is available. This includes operations involving cutting, sawing, drilling, and crushing of concrete, brick, block, rock and stone products, and operations using sand products (such as in glass work, foundry, sand blasting and clay mixing). Exposure should be limited and by-standers protected from dust at all times.
15. Fiberglass sanding and resin work:

    Fiberglass sanding and resin work may only be done in the Specialty Finishes Room in 3D Lab.
    Students may NOT create wood or foam dust in the Sculpture area.

FABRIC DYE

- Students are ONLY permitted to use Procion MX Fabric Dyes by Jacquard Products, Inc. (sold at Dick Blick).
- Those mixing/ handling the Procion MX dyes in powdered form must use appropriate PPE including dust mask, rubber gloves, and eye protection.
- Powdered Procion MX Dyes MUST be mixed under ventilation units in the lithography area on top of wet newspaper (to absorb stray particles).
- Powdered Procion MX Dye MUST be stored in the original, labelled container with the lid well-tightened.
- Mixed dyes may ONLY be stored in designated secondary containers and must be labelled with date, color and then given to the Sewing Lab Technician for storing.
- Soda Ash may be harmful if swallowed and may irritate eyes. Use eye protection when working with soda ash.
- Any tools or equipment used for fabric dyeing of any kind should ONLY be used for fabric dyeing, NEVER for food preparation.
- Dye buckets/vats may ONLY be disposed of in designated sinks on the 3rd floor.

APPROVED TOOL LIST FOR INDEPENDENT STUDIOS

ONLY those tools on the approved tool list can be used in independent studios. Approved tools include:

- Non-electric hand tools
- All battery-operated hand tools
- Hand-operated miter saws
- Plug-in hand drills

Items that are NOT approved include chain saws, sawzalls, sanders, drill presses, electric chop saws, band saws, miter saws, table saws and all other electric tools. These may ONLY be used in monitored and/or approved shop areas.

PORTABLE LADDER SAFETY TIPS

- Read and follow all labels/markings on ladder
- Avoid electrical hazards! Look for overhead power lines before handling a ladder. Avoid using metal ladders near power lines, exposed energized electrical equipment, or even changing light bulbs.
- Do not use a ladder if it is damaged or broken.
- Do not use a step ladder as a single ladder or in a partially closed position.
- Do not use the top step/rung of a ladder as a step/rung unless it was designed for that purpose.
- Always maintain 3-points (two hands and a foot, or two feet and a hand) of contact on the ladder and always face the ladder while climbing.
- Only use ladders and appropriate accessories for their designed purposes.
- Ladders must be free of any slippery material on the rugs, steps or feet.
- Use a ladder only on a stable and level surface, unless it has been secured to prevent displacement.
- Do not place a ladder on boxes, barrels or other unstable bases to obtain additional height.
- An extension or straight ladder used to access an elevated surface must extend at least 3 feet above the point of support. Do not stand on the top three rungs of any ladder.
- The proper angle for setting up a ladder is to place its base a quarter of the working length of the ladder from the wall or other vertical support.
- Do not place a ladder in any location where it can be bumped by someone walking by. Position safety barricades around the site to keep traffic away from the ladder.
- Be sure all locks on an extension ladder are properly engaged.
- Do not exceed the maximum load rating of a ladder. Be aware of the ladder's load rating and of the weight it is supporting, including the weight of any tools or equipment.

LOCKOUT/ TAG-OUT: CONTROLLING HAZARDOUS ENERGY

1. Lockout is the process of blocking the flow of energy from a power source to a piece of equipment and keeping it blocked out.
    - LOCKOUT is accomplished by installing a lockout device at the power source so that equipment powered by that source cannot be operated. A lockout device is a lock, block, or chain that keeps a valve or lever in the off position. Locks are provided by MIAD and can be used only for lockout purposes. They are never be used to lock toolboxes, storage sheds, or other devices.
    - TAG-OUT is accomplished by placing a tag on the power source. The tag acts as a warning not to restore energy – it is not a physical restraint. Tags must clearly state "Do not operate," or the like, and must be applied by hand.
    - Only authorized staff members are able to lock and tag. (Building Maintenance, Lab Techs, Contractors.)
2. If you see a lockout lock or tag on a specific piece of equipment, machinery or breaker box, DO NOT attempt to operate it. You may notice locks and tags on equipment, which could mean several things, such as the machine guard is broken, someone is working on a breaker, there is a short, it is not working properly, it requires adjustments or maintenance and/or repairs are in need.
3. If you find a piece of equipment is not operating properly for any reason, the machine guard is broken, someone is working on a breaker, there is a short, it requires adjustments or maintenance and/or repairs are needed:
    a.) Unplug the equipment.
    b.) Ask someone to stay with the de-energized equipment.
    c.) Notify an authorized staff member immediately.
    d.) If no authorized staff member can be found, please call the Director of Safety at x3300.

MERCURY

Students, faculty and staff are not allowed to bring mercury-containing items into the building. MIAD is in the process of eliminating all use of mercury-containing products, including fluorescent light bulbs. However, some still remain on campus.

In the event of a broken fluorescent light bulb, the Building Manager should be contacted immediately. Do not touch anything. Restrict entry to the area and ensure that shoes, clothing and other items do not have mercury on them before they are allowed to leave the area. A trained staff member will use a mercury spill kit to properly clean the affected area.

Items such as watches, cameras, digital thermometers, calculators and toys that use button cell batteries do contain a small amount of mercury, but are allowed since the material is well-contained and in minute amounts. Button cell batteries MUST be removed before the disposal of such items and recycled in the maintenance area, NOT put into the garbage.

BATTERY RECYCLING

The institution has identified an area in the maintenance department where alkaline batteries can be recycled. All batteries dropped off at this site, MUST be appropriately prepared. The positive and negative ends of each battery should be taped over to prevent contact with other batteries in the recycle bin and reduce fire and explosion hazards.

EMERGENCY INFORMATION

ALL students should familiarize themselves with the Emergency Procedures directions posted in every classroom and studio. Different emergencies require different responses.
Everyone should be aware of the following:

- Know the Emergency Reporting Procedures
- Know the quickest evacuation route from any area.
- Know the location of "safe meeting" areas for the building that they are in.

• Know the location of emergency and safety equipment in each area.
(emergency phones, alarm pulls, fire extinguishers, eyewash stations, safety showers and first aid kits)

TYPES OF ON-CAMPUS EMERGENCIES

1. **LIFE-THREATENING EMERGENCIES:**
   Examples: heart attack, unconsciousness, car accidents, narcotics overdose, fires, terrorism, explosions, etc.
   - Call 911 for Milwaukee city police, fire or ambulance.
   - Then notify guard at security desk or call MIAD campus safety, x3300.
2. **NON-LIFE THREATENING INJURIES:**
   Examples: cuts, slips, trips, flooding, sprains, strains, etc.
   - Go to guard at lobby desk or call MIAD campus safety, x3300.
   (off-campus phone or cell: 414-847-3300)
3. **FIRST AID INJURIES:**
   Examples: band-aids, hot/cold therapy, removing splinters, etc.
   - Call MIAD Security x3300.

EMERGENCY REPORTING:

1. Campus Safety is trained in first response.
   To Call Campus Safety, Dial x3300, or Off-Campus, 414-847-3300
   - Give exact location of emergency (e.g., building, floor, room).
   - Give your name and the number where you are calling from.
   - Describe nature of emergency (e.g., fire, injury, leak).
   - Stay near phone, if possible for additional instructions.
2. Please report all hazards, concerns and near-misses to Security (414-847-3300) or email:
   Director of Security, keithkotowicz@miad.edu

EMERGENCY EVACUATION PROCEDURES:

In the event of a drill or actual emergency evacuation, students should:

- Immediately evacuate the building via the nearest stairwell.
- Go across the street to Catalano Square.
- Stay with your class so faculty know all their students have safely evacuated.
- Remain there until a "Safe to Return" announcement is given by the Director of Security.

LOCKDOWN PROCEDURES

In the event of a lockdown drill or actual emergency situation inside the building, students should:

- Immediately move to nearest secured space.
- Lock classroom/ office door or barricade door with furniture.
- SILENCE CELL PHONES
- Move away from windows and doors and keep out of sight.
- Do not respond to any one at the door until "all clear" is announced through PA system or via other Emergency Notification tools (text messaging, email).
- Do not leave secured space until Campus Security or Local Law Enforcement announces "all clear".

OTHER SAFETY INFORMATION

COMPUTER AND OFFICE ERGONOMICS

1. **Eye Strain:**
   Use of computers may reduce exposure of artists and designers to the hazardous materials and procedures of traditional design work, however because artists can do so much work with a computer, they end up staying in the same position for long periods of time. This can lead to repetitive stress on the body with

headaches and eye and vision problems. Ways ways to reduce eye discomfort from computer or video display terminal. (VDT) use include:

- Dimming the room lights can reduce glare.
- Using desk lamps to spotlight paperwork or notes.
- Changing the contrast and brightness of the screen to comfortable settings.
- Take regular breaks to rest your eyes. For example 15 minutes per every two hours of work.

1. **Computer Tips For Reducing Fatigue:**
   Complaints such as back, neck, shoulder and upper arm complaints are common in constant VDT users. Repetitive wrist motions can cause strain injuries such as tendonitis and carpal tunnel syndrome. Suggestions for reducing the risk of developing these conditions include:
   - Keeping wrists straight by using a wrist rest or arm supports.
   - Practicing good posture, keeping the back straight and supported by a good chair. Keep feet flat on the floor or use a footrest.
   - Neck should not have to tilt up or down. The top of the monitor should be placed at eye level to allow proper head and neck position.
   - Taking frequent short breaks. Breaking up long stretches on the keyboard or mouse with alternative work involving different work motions

FOR MORE INFORMATION ON HEALTH AND SAFETY HAZARDS FOR ARTISTS…

- **Environmental Health & Safety in the Arts: A Guide for K-12 Schools, Colleges, and Artisans** (prepared by Pratt Institute for the U.S. EPA)
  http://www.epa.gov/region2/children/k12/english/EHS-in-the-arts.pdf

- **Safety Guide for Art Studios** by Thomas Ouimet, CIH, CSP
  https://www.monmouth.edu/uploadedFiles/Academics/Departments/Art_and_Design/ArtSafetyGuidelines.pdf

- **The Artist's Complete Health and Safety Guide** by Monona Rossol (in MIAD Library)

- **Art and Craft Safety Guide** put out by the U.S. Consumer Product Safety Commission
  www.cpsc.gov/cpscpub/pubs/5015.pdf