SOA SAFETY POLICIES

Introduction

Each member of the School of Art, whether faculty, staff, or student, is responsible for knowing and observing Northern Arizona University and School of Art safety policies. The goal is to develop positive attitudes regarding health and safety among all faculty, staff, and students within the School of Art. It is essential that all members take an active part to initiate and enforce preventive measures to control hazards associated with activities under their direction.

Purpose

The purpose of this policy is to set forth general guidelines for the School of Art and individual studio program safety procedures. Individual studio program safety procedures are essential in providing a safe and healthful performance of art activities and the safest possible working and educational environment for faculty, staff, and students. All School of Art and individual studio program safety procedures must follow the provisions of the Northern University Arizona's Safe Working and Learning Environment Policy (http://www4.nau.edu/diversity/swale.asp), any policies set by NAU's Department of Safety and Environmental Services (http://www4.nau.edu/cas/SES/index.html), NAU's Office of Regulatory Compliance (http://www.orc.nau.edu/safety.html), Policy #5.03 (safety policy) in NAU's Office of Human Resources policy manual (http://hr.nau.edu/m/images/stories/docs/policy_manual.pdf) and any other applicable local, state, and/or federal regulations.

Dissemination of Safety Information

Program chairs are responsible for safety and housekeeping in their teaching areas. Each program chair is responsible for developing, posting, and enforcing any special safety precautions particular to his/her area arising from the nature of instruction. Each faculty member is reponsible for disseminating studio program-specific safety policies to the students with the syllabus on the first day of instruction; each student is responsible for knowing and following those policies. School, program and university safety policies are also posted on the School of Art web site.

Faculty Responsibilities

Each faculty member and teaching assistant is responsible for the dissemination of information to students and employees under their active academic jurisdiction. These responsibilities include, but are not limited to, the following:

- Explain to students the University and Studio Art Department safety regulations/procedures pertinent to their specific academic tasks and/or activities.Assure the safe and appropriate use and storage of materials in the lab/studio areas.
- Require students to use personal protective devices and clothing as needed for the proposed instruction or activity. Such devices and equipment must be maintained in good repair.

- Inspect instructional areas frequently for identification and prompt elimination of unsafe practices and conditions.
- Seek prompt medical treatment for any student injured by calling **523-3000**.
- Notify the director of the School of Art of all accidents involving students, faculty, or staff, even those that do not require medical attention. This information is used to plan future safety policies.
- Submit recommendations for the improvement of the immediate academic environment to the director of the School of Art.

Staff, Student Employees, and Student Responsibilities

University employees and students are subject to all campus health and safety regulations. Compliance is vital to the creation and maintenance of a healthy and safe campus environment. These responsibilities include, but are not limited to, the following:

- Understand and comply with the Northern Arizona University, School of Art and studio program-specific safety policies, whether written or oral, when performing assigned work duties.
- Use only tools and equipment approved or provided by the supervisor/instructor.
- Use appropriate safety equipment and guards, and work with established safety procedures.
- Report unsafe conditions, practices or equipment to the professor, supervisor or School of Art director whenever such deficiencies are observed and as often as necessary to assure correction.

Miscellaneous School of Art Safety Policies (in addition to studio program-specific policies):

Each program/major has a safety policy that is available from the coordinator of that program/major. In addition to those policies and those of the university, the School of Art has the following policies meant to ensure a safe working and learning environment:

- Non-student minors are in some cases not allowed to visit or be present on parts of the NAU campus. This policy is found at http://www.orc.nau.edu/manuals_policies.html.

- Human remains and animal remains are allowed to be used for instructional purposes to the extent permitted by Northern University Arizona's Safe Working and Learning Environment Policy (http://www4.nau.edu/diversity/swale.asp), the Office of Regulatory Compliance (http://www.orc.nau.edu/index.html), and The Office of the Vice President for Research (http://www.research.nau.edu/vpr/index.html).

Safety Guidelines for Art Education

Materials

Most materials used in the art education program are those that are approved for use in K-12 public school classrooms and have received certification as non-toxic from the Art & Creative Materials Institute, Inc (ACMI). Products with this certification bear the following seal:

A small percentage of materials used in the art education program do not have this seal and are intended for use by adults only. Instructions on each product must be followed. The following seal will be found on art materials that are intended for adult use or under strict adult supervision:

For a complete list of products that are on the approved list of non-toxic materials for classrooms, visit the ACMI website at **http://www.acminet.org/CPList.pdf**

Reasonable Care

Reasonable care is taken to prevent art education students from being exposed to toxic materials in the classroom. Practice care when using any art materials. Select materials that have the ACMI seal of approval. Avoid inhalation, ingestion, or skin contact regardless if the material is on the safety list. Follow instructions for proper disposal of any materials. Never pour liquids down the drain. Call Risk Management if you have any questions about proper disposal of any substance. 523-6109

Tools

Art tools used in the art education program are those that are designed for use in K-12 public school art classrooms and are generally safe. Most of these tools are stored in the art education closet for use by students in the art education classroom. These tools are not for use in other areas and cannot be checked out. Please return all tools to their proper storage place.

Cutting tools require special care. These tools include X-acto knives, linoleum cutters, scissors, and box cutters. When using these tools, work with caution to avoid injury. In addition, protect the cutting surface with cardboard.

The paper cutter is extremely sharp. Please use with care. The paper cutter is to be used to cut paper, foam board, tag board, and poster board. The cutter is not designed to cut wood or thick stacks of paper. Please close the safety latch over the blade after using the paper cutter.

When using hot glue guns or the hot plate, please allow the devices to cool before storing in the closet.

Medical Emergencies

On campus call 523-3000
Off campus call 911

Minor Injuries

Cuts	For minor cuts, wash the injury with soap and water. Apply a bandage if needed.
Burns	Cool the burn with cool water; do not use oil or greasy ointments

Contact the Fronske Center at 523-8995 if you need assistance.

Technology

The art education classroom is not a wireless environment. Please use caution when entering the classroom.

The interactive digital whiteboard is available for student use for presentations in the art education classroom. It cannot be checked out for use elsewhere. Care should be taken to use only the electronic pens and eraser. Dry erase markers, watercolor markers, permanent markers, and tape permanently mar the surface of the whiteboard.

A laptop computer and digital projector are available for student use in the art education classroom. These items cannot be checked out for use elsewhere.

A digital camera and camcorder are available for use by students in the art education classroom. These cameras may be used to photograph artwork or presentations. They cannot be checked out for use elsewhere.

Animals
University policy prevents animals in the classrooms unless they are Assistance Animals.

Scheduling
The art education room (318) has classes in session Monday evening (5 – 8:00) during the spring and fall semesters, Tuesday and Thursday 8:00 AM until 1:00 PM during the fall and spring semesters, and Monday through Thursday from 8:00 AM until 1:00 during the summer pre-session. No students may use the room during these times without prior approval from faculty. Do not disturb a class in session. Use of the room, materials, and tools are reserved for the scheduled class.

Courtesy
- Please turn off cell phones during class
- No headphones during class
- Arrive on time
- Be ready to learn
- Act in a way that builds others up
- Clean your area and leave it better than you found it

The NAU Art Education Department is a drug and alcohol-free zone.

I am aware of the Risk Management statement to the effect that "the University's self-insurance plan does not provide medical coverage to students if injured while participating in University-related activities or academic programs" and that I am covered for liability only.

I have read and understand the above safety guidelines and will comply with them.

Student Name _____ Student ID # _____

Address_____ Local Phone_____

Emergency Contact Name & Phone Number:_____

Signature and Date _____

Ceramics Studio Safety Rules

To be granted the privilege of using this facility you are required to be familiar with and to observe, these safety regulations governing its use. Violation of any safe working methods may cause the loss of privilege or disciplinary action.

1. Good housekeeping, cleaning and orderly work areas and equipment are fundamental to accident and fire prevention. Assigned work areas and equipment are to be cleaned and placed in order by each user at the end of each work period.
2. Horseplay of any kind is forbidden.
3. You are not to operate machinery to which you have not been trained or assigned. You will be trained in the use of potentially hazardous equipment.
4. Shop facilities may not be used after class time in the evenings or on the weekends if the shop supervisor, or their delegate, are not on duty. After hours the shop must be supervised by a ceramics major. If a shop supervisor is not to be found the ceramics faculty must be notified.
5. All accidents, including minor scrapes or cuts, should be reported immediately to the ceramics faculty or shop supervisor.
6. Eye protection should be worn at all times when it is appropriate. Chopping wood, using the grinder or breaking bricks all require eye protection.
7. Jewelry, ties and clothing, which, in the opinion of the shop supervisor or faculty, seem hazardous, must not be worn while working on the potter's wheel, using kilns or making clay. Close toed shoes are required, no sandals in the ceramics lab. Long hair should be tied back when operating machines with moving parts.
8. Clean up of work areas should be done with a wet sponge. Avoid sweeping in the ceramics lab as it raises dust that will remain air born for days. Water is the best solution for cleaning. Be aware of floors that may be slippery.
9. Dust masks must be worn when making clay or glazes. Rubber gloves should be worn when making glazes that contain heavy metals.
10. No Smoking or drinking in the ceramics lab. Do not come to the ceramics lab or the kilns, or operate and equipment if you are under the influence of alcohol. This presents a very dangerous situation. Violation of this rule results in an immediate loss of privileges and severe disciplinary action.
11. If you have allergies or are pregnant please inform your instructor. Working in the ceramics lab could be hazardous to your health.
12. No eating food in work areas.
13. All containers must be labeled or they will be discarded. All glazes in the glaze room are to have a computer-generated label with a list of ingredients and a description of the glaze and fired test tile. You are not to make personal glazes and keep them in the glaze room. Always check with an instructor before making glazes.
14. No work left on common tables overnight. If it is left it will be discarded the next morning at the start of class.

15. No firing of kilns unless you have been checked out for safety and trained by the ceramics faculty. All kiln firings must be approved by the faculty and utilize the firing schedule. Initials from a faculty person on this schedule are required. Firings that commence without approval will be shut off and result in an immediate loss of firing privilege
16. Kiln logs must be kept for all firings. No kiln log will result in the firing being shut down.
17. All artwork must be labeled.
18. The First aid kit is located next to the phone. There is an emergency pole out back of the lab in case of an emergency.
19. If you smell gas at the ceramics lab, notify an instructor and leave immediately. If you are alone or no instructor is present, leave the building and use the emergency pole to call the police.

Bench Grinder

1. Hair pulled back.
2. Sleeves rolled or buttoned.
3. Overhead lights turned on.
4. Eye shield must be worn.

Spray Booth

1. Exhaust fan on.
2. Mask worn.
3. Air pressure set to a minimum.

Glazing

1. Ventilation system on.
2. All glaze materials must be kept in the glaze area.
3. No dry sifting of materials unless it is in the spray booth or outside.
4. Masks and gloves should be worn if using heavy metals.
5. Glaze are should be kept clean.
6. If you have questions about a glaze ask your instructor.
7. Glazes should stop ¼" – 1/8" from the bottom of a piece. All pieces should be "dry footed", no glaze on the bottom.

Clay Making

1. Permission must be obtained from an instructor
2. Clay must be made during your class time.
3. Exhaust fan must be on and a mask must be worn.
4. Hair should be tied back.
5. Raise as little dust as possible.
6. All mixers should be cleaned after each use, mixing room floor must be hosed down each time clay is made,
7. Pug mill should be covered with plastic.
8. Empty clay bags should be taken to the dumpster.

Clay Mixers

1. NEVER put your hands into a running clay mixer or pug mill. If the lid is opened and the mixer does not immediately shut off and instructor should be made aware immediately.
2. NEVER use a clay mixer without complete instruction by the faculty.

Potters Wheels

1. No Bare feet or flip-flops. Close toed shoes at all times.
2. Flywheel must be stopped before getting on and off.
3. Wheel must be cleaned after each use.
4. Do not get electric wheel foot controllers wet.
5. Electric wheels should be turned off after each use.

Kilns

1. Permission and initials on the kiln schedule must be obtained.
2. One person from a firing group must be on hand at all times during a firing.
3. Gloves must be worn when checking the kiln or removing a spy brick
4. When kiln is unloaded all shelves must be cleaned, rewashed and bricks stacked neatly in the appropriate place.
5. A faculty member must check you out for safety before using a kiln of any kind.
6. No bisque firing in the electric kilns.
7. When looking into a hot kiln eye protection must be worn.
8. The instructors will cover specifics of each kiln.

Pottery Etiquette

1. Clean the wedging table after each use.
2. Clean the wheel after each use.
3. Bats and wear boards should be returned after they have been used.
4. Molds must be stored in the appropriate place.
5. Clay must be kept in lockers or in designated areas.
6. When pieces are completed they should be put in the green ware area to be bisqued.
7. Plaster is to be kept separate from wet work areas. You may only use plaster in the glaze room.
8. Do not move or disturb other people’s artwork. If something needs to be moved, ask an instructor.
9. In general, leave your work area cleaner than you found it and be considerate of others.

Safety Procedures for the Design and Drawing Studios
Foundations Area
NAU School of Art
November, 2007

A. Studio Awareness

- Any accidents should be reported to your instructor
- Keep the floor free of drawing boards, extension cords, 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
- Become familiar with proper procedures (see sections below) that should be taken if 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
Personal Safety (General)

- Do not use aerosol sprays of any kind in the drawing or design studios.
- Spraying fixative or paints is absolutely prohibited inside the building. ALL spraying must be done outdoors.
- When you spray your drawings or projects outside:
    - Make sure you are far enough away from the building so fumes do not re-enter the building through windows, doors, or ventilation ducts. (This includes upper level windows.)
    - Make sure you position yourself so you do not inhale fixative or other aerosols. Do not put yourself downwind of the spray.
    - Drawings and projects must COMPLETELY dry before bringing them back into the building.
    - Inclement weather conditions are no excuse for spraying inside.

Personal Protection for the Drawing and Design Studios

Head/Face Protection

- Tie back long hair or wear a hat if you are working with any type of rotary device such as an electric eraser, drill, dremel, etc. or when using the paper cutter.

Eye Protection

- None needed unless working with power tools

Ear Protection

- None needed unless working with power tools

Protective Clothing

- None needed unless working with power tools

Hand Protection

- None needed unless working with power tools

Foot Protection

- None needed unless working with power tools

Respirators/Masks

- None needed unless working with power tools

C. Fire Prevention & Safety Equipment
Fire Prevention

- Smoking is not allowed in any campus building.
- Please be aware of any ignition sources such as frayed extension cords or lights left on.
- Do not spray fixative outside while you are smoking. Spray fixative is highly flammable.

D. First Aid & Emergency Procedures

- In the event of an emergency, call 911 or the NAU campus emergency number: NAU Police/Ambulance/Fire 3-3000

    - In the event of a medical emergency or injury, stop work and notify the instructor. Immediately seek emergency assistance by calling 911 or 3-3000
    - In the event of a fire emergency, pull the fire alarm nearest you, have someone call 911 or 3-3000 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
- Be familiar with the location and use of the following safety devices:
    - Emergency Phone
    - Fire Alarm

- First Aid
- Fire Extinguisher

E. Chemical Labeling, Storage & Waste Disposal
Chemical Waste Disposal
Liquid Waste
The drawing and design room sinks are for hand washing only. Excessive amounts of water- or oil-based paints should not be washed down the sink but discarded in the trash.

Solvents should be discarded in an appropriate container, not in the sinks.

F. Housekeeping

- Faculty and students are responsible for cleaning up all areas of the studio they use.
- Studios should be kept as clean as possible.
- Please use the sinks in the studios to wash the majority of charcoal off your hands instead of the bathroom sinks.
- Please wipe water from floor and around the sinks.
- Orange extension cords must be unplugged from the walls, coiled up, and stored away.
- Please put down paper or cardboard if you will be working with liquids.
- Emergency exits, emergency shutoffs, fire extinguishers circuit breakers, and alarm pull stations must be kept free of all projects or materials at all times.
- Any drawing studio equipment such as easels, drawing boards, or still life objects that are used outside of the studio or in the hall, must be returned to the studio when you are done working.
- All studio furniture must be stored properly after each class. No studio furniture is to be left in the hallways or blocking stairs, doors, fire alarm pull stations, fire extinguishers, or emergency exits.
- Bicycles should **not** be brought into the buildings. Use the bike racks located outside.
- Children and pets shouldn't be brought into the building while you are working. There are many items in this building that could cause serious injury or death if ingested or in contact with skin, eyes, etc.
- Project/ Student Material Storage
    - During the semester, all portfolios and projects brought into the building by students should be labeled with their name, instructor, and current semester.
    - Student materials must be stored in lockers or taken home

F.1 End of Semester Clean Up

- No student projects or materials are to be left in the studios at the end of the semester.
- A locker clean out date will be announced near the end of the semester. All student portfolios and random materials need to be removed from lockers by this date or locks will be cut and materials removed.
- Notices will also be posted on all lockers alerting students to the last day for clean up.
- If materials are still in the building after notice has been given they will be

thrown out or recycled.

G. After Hours Work

- It is highly recommended that students do not work in the drawing or design studios alone. Please work with a classmate or instructor.
- 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.

Interior Design

INTERIOR DESIGN SAFETY POLICY

General Safety

For safety reasons, only enrolled students may use the Interior Design classrooms and studios. Students may not work alone in the studio. NAU School of Art faculty and staff want all students to feel safe on campus.

For all emergencies on campus, call University Police at **523-3000**.

Classroom Safety

Never work with anything that is potentially dangerous (that includes a x-acto knife) when you are tired or distracted in any way. These are the times when your judgment is impaired. Unfortunately this impaired judgment sometimes prevents you from making the correct decision to go on to something else, or quit working altogether.

Eyes:
Whenever there is the possibility of air born particles or chips, wear eye protection. Your eyes are delicate and vulnerable. Wear safety glasses, goggles, whatever is appropriate. Get in the habit.

Dust:
Dust is both a short and long term health and safety issue. Wear dust masks when sanding.

Breathing:
Use respirators when using any chemicals, solvents, etc. Use the appropriate filter with the respirator. If with the respirator on, you can still smell anything, then something is wrong. Check filter, fit of respirator, etc.

Body:
Long loose hair, loose clothing, shirtsleeves, slippery shoes (including flip-flops) jewelry can be potentially dangerous. Evaluate the situation. For example working with loose long hair on the band saw can easily get you scalped. Use caps, guards, push sticks, hold downs, guides, protective gloves - the list is endless.

Ears:
Always use ear protection when necessary.

General Safety Instructions for Machines

1. Keep your attention and focus on what you are doing.
2. Never talk to, or distract someone else who is operating a machine.
3. Be careful not to shout or walk up behind someone operating a machine.
4. Keep loose clothing rolled up and tucked in.
5. Control long hair.
6. Wear safety glasses when operating machines.
7. Be alert for any unusual sounds when turning on or operating any machine.
8. Clean up scrap wood, sawdust, etc. when finished with a machine.
9. Be alert for loose parts, miss-adjustments and dull blades. Always correct the situation before using the machine.
10. Develop and maintain a respectful attitude toward all machines. Take a little time periodically, or before beginning an operation to try to anticipate what could go wrong. Remind yourself frequently of good safety practices.
11. Never force or “horse” a machine. Let the machine do the work. If it’s burning the material or overloading the motor then something is wrong. Stop and check!
12. Use a power machine only after you have received instruction on its safe and proper use.
13. Never use a power machine when you are alone in the studio.

No tool or piece of equipment may be used without a formal demonstration on its proper use and safety by the professor. NO EXCEPTIONS. All materials and equipment are used at your own risk. While basic hygiene and common sense in handling and dealing with potentially hazardous materials/processes will generally suffice, please be sure to follow the proper safety instructions presented to you.

Health Warning: Interior Design courses will involve the use of paint, glues and model making material that have potentially hazardous health effects. Pregnant women and those with allergies or other health problems should be aware of the risks involved with exposure to these chemicals and consult their doctor before enrolling in Interior Design courses.

Painting

Painting Clean-up Procedures

Sinks are for hand washing ONLY. Follow the instructions below for cleaning brushes and tools. Do not use restrooms for cleaning art materials or supplies.
Brush Cleaning: Oil, Alkyd, Resin-oil, Enamel, Encaustic , and other solvent-thinned paints

1. Rinse brushes in your personal small, re-closable container of the appropriate solvent: odorless mineral spirits or odorless turpenoid.
2. Wipe brushes of all paint and solvent residue on a rag or paper towel.
3. Rinse brushes of remaining paint and solvent residue in dishwashing liquid or ordinary vegetable oil--the cheapest you can find. Wipe brushes on a rag or paper towel.
4. Wash with the soapy water. Rinse well in clean water.
5. Shape the brush heads and allow them to air dry. Store dry brushes in a closed container to prevent the accumulation of dust.

Brush Cleaning: Acrylic dispersion, Poster Paints ("Temperas"), and other water-thinned paints

1. Wipe brushes of all paint on a rag or paper towel.
2. Rinse brushes in your personal container of water.
3. Wipe brushes of remaining paint on a rag or paper towel.
4. Wash with the soapy water. Rinse well in clean water.
5. Shape the brush heads and allow them to dry.

Liquid Solvent Disposal

Unwanted or waste solvents (except water), oils (including vegetable oils), and mediums SHALL be put into the cylindrical plastic safety container located in Rooms 315.
The lids to all these containers must be kept closed, except when waste is being added.
DO NOT use sinks or toilets for disposing of these materials:
doing so will harm the environment and it's illegal.

Paint disposal

Unwanted paint including palette scrapings shall be collected on a paper towel or rag and properly disposed of in studio containment cans.

Disposal of Failed Art

Unwanted or failed art projects embody shall be broken down into small pieces and dispose of in the studio trash containers.

General Disposal

YOU are responsible for removing unwanted furniture or trash from your studio to the nearest dumpster. DO NOT leave these objects in a hallway. Objects in a hallway violate university regulations, and can block our emergency exit from the building.

Painting Materials

Painting and drawing materials consist of pigments mixed with various vehicles such as water, oil, wax, egg yolk, casein, resins and solvent solutions. The primary hazard in standard painting techniques is the accidental ingestion of pigments due to eating, drinking or smoking while working with paints. Ingestion may occur through inadvertent hand-to-mouth contact or by pointing the tip of the brush with the lips.

Pigments

Pigments are used as colorants in painting and drawing. Many pigments are inorganic and come from common minerals. Pigments may also be organically manufactured in a laboratory.

Hazards Associated with Pigments

Methods such as spraying, heating or sanding may cause the potential for inhalation of toxic pigments. Lead and other toxic metal-containing pigments are common in painting and drawing products. Lead pigments can cause anemia, gastrointestinal problems, peripheral nerve damage and brain damage in children, and kidney damage or reproductive system damage. Other inorganic pigments may be hazardous including pigments based on cobalt, cadmium and manganese. Some of the inorganic pigments, in particular cadmium pigments, chrome yellow and zinc yellow are known or suspect human carcinogens and may cause lung cancer. Chromate-containing pigments such as chrome yellow or zinc yellow and cobalt can cause skin irritation.

Safety Precautions When Working with Pigments

The following safety precautions shall be followed when working with pigments:

Obtain a material safety data sheet (MSDS) on your paints to find out what pigments you are using. This is especially important because the name that appears on the tube of color may or may not truly represent the pigments present. Manufacturers may keep the name of a color while reformulating the ingredients. Do not use lead or carcinogenic pigments. Use the least toxic pigments possible;

Use tube paints and commercially available inks when possible. Avoid mixing dry pigments;

If dry pigments are mixed, do so inside a glove box (a box with a glass or Plexiglas top and holes in the sides for arms) or inside a laboratory-type fume hood;

If a glove box or exhaust hood is not practical, wear a NIOSH-approved toxic dust respirator when mixing dry pigments;

Wet mop and wipe all surfaces when using dry pigments;

Never use lips to point the end of the paintbrush;

Eating, smoking and drinking are prohibited in the studio; and

Avoid using dishes, containers or utensils from the kitchen to mix or store paints and pigments.

Water-Based Paints

Water-based paints include watercolor, acrylic, gouache, tempera and casein. Water is used for thinning and cleanup.

Hazards Associated with Water-Based Paints

Acrylic paints contain a small amount of ammonia. Some sensitive people may experience eye, nose and throat irritation from the ammonia. Acrylics and some gouaches contain a very small amount of formaldehyde as a preservative. People already sensitized to formaldehyde may experience allergic reactions from the trace amount of formaldehyde found in acrylics. Casein paints use the protein casein as a binder. While soluble forms are available, casein can be dissolved in ammonium hydroxide which is moderately irritating through skin contact and highly irritating through eye contact, ingestion and inhalation.

Safety Precautions When Working with Water-Based Paints

The following safety precautions shall be followed when working with water-based paints:

Avoid using sodium fluoride, phenol or mercury compounds when adding preservatives to paints;

Use a window exhaust fan or open a window while using acrylic paints;

Use a window exhaust fan to provide ventilation while mixing casein paints using ammonium hydroxide;

Never use lips to point the end of the paintbrush;

Eating, smoking and drinking are prohibited in the studio; and

Wear gloves, goggles and protective apron when handling ammonia. An emergency eyewash is available in the printmaking studio.

Non-Water Based Paints (Oil)

Oil paints, encaustic and egg tempera use linseed oil, wax and egg respectively as vehicles, although solvents are often used as a thinner and for cleanup. Turpentine and mineral spirits (paint thinner) are used in oil painting mediums, for thinning or for cleaning brushes. Alkyd paints use solvents as their vehicle. In addition, many commercial paints used by artists also contain solvents.

Hazards Associated with Non Water-Based Paints

Solvents can cause defatting of the skin and dermatitis from prolonged or repeated exposure. Acute inhalation of high concentrations of mineral spirits, turpentine vapors, and other solvents can cause narcosis, which can include symptoms of dizziness, headaches drowsiness, nausea, fatigue, loss of coordination, coma and respiratory irritation. Chronic inhalation of large

amounts of solvents could result in decreased coordination, behavioral changes and brain damage. Chronic inhalation of turpentine can cause kidney damage and respiratory irritation or allergies. Ingestion of either turpentine or mineral spirits can be fatal. In the case of mineral spirits, this is usually due to chemical pneumonia caused by aspiration (breathing in) of the mineral spirits into the lungs after vomiting. Turpentine can also cause skin allergies and be absorbed through the skin. Epoxy paints consist of an epoxy resin component containing the pigment and a hardener component. The epoxy resin may contain diglycidyl ethers which are irritants, may cause bone marrow damage and are suspect carcinogens. Epoxy hardeners may cause skin and respiratory allergies and irritation.

Safety Precautions When Working with Non Water-Based Paints

The following safety precautions shall be followed when working with non water-based paints:

Replace turpentine or ordinary mineral spirits with the less toxic odorless mineral spirits;

Use a window exhaust fan to provide ventilation. Set up easel approximately three feet from a window that has a fan exhausting at work level pulling the solvent vapors away from your face. The rest of the window should be blocked off so that contaminated air does not re-enter the room. Techniques such as turpentine washes require a lot of ventilation because they result in the evaporation of large amounts of solvents in a short period of time;

Wear neoprene gloves while cleaning brushes with mineral spirits or turpentine;

Remove paint from hands using baby oil, soap and then water;

When adequate ventilation cannot be provided while using epoxy paints, gloves and a NIOSH-approved respirator with organic vapor cartridges shall be worn;

Never use lips to point the end of the paintbrush;

Eating, smoking and drinking are prohibited in the studio; and

During pregnancy and nursing, switch to water-based paints to avoid exposure to solvents.

Table for Toxic Pigments

Known or Probable Carcinogens / Highly Toxic Pigments

antimony white (antimony trioxide)

barium yellow (barium chromate)

burnt umber or raw umber (iron oxides, manganese silicates or dioxide)

cadmium red or orange (cadmium sulfide, cadmium selenide)

cadmium yellow (cadmium sulfide)

cadmium barium colors (cadmium colors and barium sulfate)

cadmium barium yellow (cadmium sulfide, cadmium selenide,

barium sulfate, zinc sulfide)

chrome green (Prussian blue, lead chromate)

chrome orange (basic lead carbonate)
chrome yellow (lead chromate)
cobalt violet (cobalt arsenate or cobalt phosphate)
cobalt yellow (potassium cobaltnitrate)
lead or flake white (basic lead carbonate)
lithol red (sodium, barium and calcium salts of soluble azo pigment)
manganese violet (manganese ammonium pyrophosphate)
molybdate orange (lead chromate, lead molybdate, lead sulfate)
naples yellow (lead antimonate)
strontium yellow (strontium chromate)
vermilion (mercuric sulfide)
zinc sulfide
zinc yellow (zinc chromate)

Moderately Toxic Pigments / Slightly Toxic Pigments

alizarin crimson (lakes of 1,2-dihydroxyanthaquinone or insoluble anthraquinone pigment)
carbon black (carbon)
cerulean blue (cobalt stannate)
cobalt blue (cobalt stannate)
cobalt green (calcined cobalt, zinc and aluminum oxides)
chromium oxide green (chromic oxide)
manganese blue (barium manganate, barium sulfate)
Prussian blue (ferric ferrocyanide)
toluidine red (insoluble azo pigment)
toluidine yellow (insoluble azo pigment)
viridian (hydrated chromic oxide)
zinc white (zinc oxide)

Construction of Stretchers

All users of the studio tools must complete a construction orientation with a painting studio faculty member. Construction of painting stretchers and access to power tools is only allowed during class-time under faculty supervision. A faculty member reserve the right to deny admittance to anyone not having satisfactorily completed construction orientation and individuals not enrolled in NAU painting courses.

STUDIO SAFETY

1. EYE PROTECTION MUST BE WORN DURING USE OF POWER TOOLS.

2. DO NOT WORK ALONE IN THE WOODSHOP. A Studio Faculty member or attendant must be present.

3. NO FOOD OR DRINK ALLOWED IN MAIN STUDIO (RM. 315 or RM 313) DURING STRETCHER CONSTRUCTION.

4. CLEAN UP AFTER WORKING.

5. PLACE TOOLS IN ROOM 315A STORAGE ROOM.

6. DO NOT FORCE TOOLS. If a tool does not work without force, notify Faculty member or attendant immediately.

7. KNOW THE TOOL you are working with before attempting to use it. Ask Faculty member for instruction before proceeding.

8. NEVER ASSUME A TOOL IS PROPERLY ADJUSTED. Always check the tool prior to use.

9. COURTEOUS BEHAVIOR IS A SAFETY OBLIGATION. Please notify anyone standing near a tool before you turn it on. By working in this studio you grant the faculty member the right to deny admittance if your behavior is deemed unsafe.

10. IN CASE OF INJURY, STOP WORK and notify the faculty immediately. Even a small injury can cause you to go into shock. Immediately seek treatment of major injuries. A first aid kit is provided to treat minor injuries. If you are in the shop when someone is injured, you must stop working and assist him or her, but you must be trained to provide first aid.

TOOLS MAY <u>NOT</u> LEAVE THE PAINTING STUDIO!

<u>NO</u> TOOL CHECK-OUT!

Printmaking

1) Proper handling of chemicals:
    a) All acids should be replaced in proper cases after use.
    b) All acids should be mixed at the sink with the water running.
    c) Wash off the outside of all acid bottles after use.
    d) All acids for etching should be put back in bottles at the end of class or after use.
    e) If any acid comes in contact with skin or clothes flush with water and contact supervisor as soon as possible.
    f) Report any accidents to supervisor.

Acids are Dangerous use with care and respect!

    g) All dirty rags with solvents should be put into hazardous waste container.
    h) All empty solvent containers go in hazardous material container.
    i) Solvents should not be placed in or around sinks.
2) Use of presses:
    a) All presses should be used as instructed.
    b) Make sure all press-beds are clean before use.
3) Use of tools:
    a) All tools should be used as instructed.
    b) All borrowed tools should be returned to cabinets after use.
    c) Use caution when using the hot plate it can cause burns.
4) No children under twelve years old are allowed in print shop.
5) No animals are allowed in print shop.
6) Please replace all tools and equipment to proper place after use.
7) Use proper safety equipment when using spray booth. (ear and eye protection)

SCULTPURE STUDIO POLICIES

A. Studio Awareness

Only students who have been properly trained during the current semester to use the sculpture area 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

Any accidents should be reported to your instructor or the department technician

The sculpture studios are to be used ONLY by students enrolled in studio art classes, faculty, or staff of the NAU School of Art.

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 tools 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

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 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)

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

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.

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.

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

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 splitter and anti-kick back device cannot be used

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 anglesand 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

Personal Protective Equipment

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

Ear plugs 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.

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 Shop

Students must wear leather top shoes when working with any tools that generated 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 not 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 ziplock bag

Do not share you 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

Safety Equipment

Flammable Storage Cabinets

Flammable liquid cabinets are designed for storage of flammable or combustible liquids

ALL Flammable liquid materials MUST be stored in flammable storage 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

D. First Aid & Emergency Procedures

In the event of an emergency, remember one number: **523-3000** if calling from a university phone. 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 **523-3000**

In the event of a fire emergency, pull the fire alarm nearest you, have someone call **523-3000** (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.

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

Emergency Phone - located in the Shop

Eye Wash Station - located in the shop

Fire Alarm - there are several pull stations throughout the building

First Aid Kit - located near sculpture studio for treating minor injuries

Fire Extinguisher - located next to the main door

Clean up all small spills immediately. If a large chemical spill occurs that you are unable to cleanup call **523-3000**.

There is one emergency shutoff located in the Shop. It is located to the left of the drill press. This button, once pressed, will turn off all power to all outlets in the Shop

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 with the following information if they do not have a manufacturer labels:

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 tightlyat all times when not in use

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

Chemical Waste Disposal

Liquid Waste

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 inopen 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 a<u>re never</u> 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 solvent-contaminated rags or paper towels may be put into the Hazardous Material Container.

Solvents include:

turpentine

mineral spirits

alcohol

wood stains, etc.

No trash other solvent-contaminated rags or paper towels may be put into the hazardous material container

Dry paint, plastic gloves, food, paintbrushes, paper paint pallets (when paint is dry) go into **the regular trash can**, not the red hazardous materials container!

Spills of chemicals/waste

Spills of solvents and excessive amounts of paints **should be cleaned up** with rags or papertowels. Rags and paper towels should then be discarded into Hazardous Material Container.

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

NAU Fire Code states that extension cords are not permitted to be used as permanent wiring. This means leaving any device plugged in (especially when unused) for long periods of time

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 should **not** be brought into the buildings. Use the bike racks located around the building. 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

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 the building, 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 the buiding. 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!!!