



ASTU 3403.501

Monday/Wednesday 8:00 – 10:50 am

Ana M. Lopez (she/her/hers)

Office: Art 209

office hours: Thursday 2-5pm via Zoom Meeting ID: 214 523 3929

Studio art office phone (940) 369-7671

email: ana.lopez@unt.edu or through Canvas

Course Description:

Design in metal using intermediate processes with an emphasis on the plastic deformation of metal. Prerequisites: Successful completion of ASTU 2401 and ASTU 2402.

Required Textbook:

The Complete Metalsmith, any edition, by Tim McCreight

Recommended Textbooks:

Silversmithing by Rupert Finegold

Form Emphasis for Metalsmiths Heikki Seppa

Chasing and Repousse. Nancy Megan Corwin

Metal techniques for Craftsmen, Oppi Untracht

Boxes and Locketts, Tim McCreight

Tools:

Students are required to procure the tools below as well as consumable materials needed for each demonstration and finished project to be determined in conjunction with their professor.

- sketch book 8” minimum width and height
- 12” square of 18 gauge copper

- soft cloth for drying (like old dish towel)
- well-fitting leather work gloves
- A usb drive
- rubber cement
- hearing protection (foam inserts or headset-style, we have foam inserts available)
- 5" jeweler's saw frame
- flush wire cutters
- flat nose pliers
- round nose pliers
- a whole whopping bunch of jeweler's saw blades (size is your choice)
- wax for saw blade (beeswax preferred)
- 8" half round file
- set of needle files
- ring clamp
- scribe
- steel tweezers
- Rubber finishing wheels as needed
- 2 cheap brushes for flux and yellow ochre
- eye protection/safety glasses if you do not wear glasses and don't want to use ours
- copper, brass, bronze, silver (as needed)
- silver solder - hard, medium, easy
- white paste flux
- fine steel wool - #0000
- abrasive paper - #220, #320, #400, #600 (a few sheets each)
- soldering pick
- Internet access
- A computer that can access and work with LinkedIn Learning and Tinkercad and that meets Canvas specifications:

<https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66>

- A digital camera with which you can upload photos to Canvas. Phone camera is fine.
- A reusable plastic storage container for turning in work

Additional suppliers and details may be found on Canvas.

There are a few extra kits containing what the beginners get in their drawers. If this is your first intermediate course you may inquire about these with Sarah. They will be distributed on a first come, first served basis.

Class Materials for Remote Instruction

Remote instruction may be necessary if community health conditions change or you need to self-isolate or quarantine due to COVID-19. Students will need access to the following at the location in which they self-isolate to participate in fully remote portions of the class.:

- Internet access
- A computer that can access and work with LinkedIn Learning, Zoom and Tinkercad and that meets Canvas specifications:<https://community.canvaslms.com/t5/Canvas-Basics-Guide/What-are-the-browser-and-computer-requirements-for-Canvas/ta-p/66>
- A digital camera with which you can upload photos to Canvas. Phone camera is fine.
- You should also make every effort to have the required hand tools for this class with you while you are self-isolating

Information on how to be successful in a remote learning environment can be found at <https://online.unt.edu/learn>.

Outcomes	Objectives
Knowledge: What students should know	
Understand the history, current issues, and direction of the artistic discipline	Acquire increasingly sophisticated knowledge of the history, current issues, and direction of metal art media, including functional knowledge of metals techniques.
Place works in the historical, cultural, and stylistic contexts of the artistic discipline	Increased ability to place works in historical, cultural, and stylistic contexts of metals art media.
Use the technology and equipment of the artistic discipline	Develop advanced knowledge of raw materials and technical procedures.
Skills: What students should be able to do	
Use the elements and principles of art to create artworks in the artistic discipline	Utilize the tools, techniques, and processes of metals to create work from concept to finished object.

Create artwork that demonstrates perceptual acuity, conceptual understanding, and technical skill	Create works of metal art that demonstrate advanced perceptual acuity, conceptual understanding, and technical skill.
Analyze and evaluate works of art in the artistic discipline	Participate in analysis and evaluation of works of metal art.
Synthesis: How students will combine knowledge and skill to demonstrate learning	
Produce artworks demonstrating technical skill and disciplinary knowledge	Produce metal art objects demonstrating advanced technical skill and disciplinary knowledge.
Use knowledge of art and disciplinary vocabulary to analyze artworks	Participate in critique of own works and the works of others using the vocabulary of metals media and demonstrating sound understanding of aesthetic principles and design elements.
Participate in critiques of own work and work of others	

Course Structure:

This class meets twice a week for three hours each time for a total of six contact hours. Students are expected to undertake additional studio work and research outside of class times. We will be split into two classrooms (170 and 172). Desks will be assigned for contact tracing purposes.

Demonstrations will be pre-recorded and posted to Canvas (the online learning system) alongside relevant technical readings and written directions. Students will view these prior to attending class in order to make the most of their studio time. Supplementary assistance as needed will take place during in-person class meetings. It is the responsibility of each student to keep up with weekly assignments and manage their time in order to meet assignment deadlines.

There will be assigned due dates for samples, design work and finished projects. Finished projects will receive peer feedback through an online posting forum to which students are expected to contribute. To enable the best opportunity for feedback, projects should be submitted in a timely manner.

Course Content and Schedule Changes

The course schedule reflects expected class progress in course subject matter and is considered tentative. The course schedule is subject to change in content and scope at the Course Instructor's discretion.

Course Requirements

Meet Ana/ Introduce Yourself - Post a picture of yourself and answer some basic get-to-know-you questions. Evaluation is Pass/Fail (students will earn 100% for completing this according to instructions or 0% for not doing so).

Syllabus Agreement - read the syllabus and complete the course contractual information. Evaluation is Pass/Fail (students will earn 100% for completing this according to instructions or 0% for not doing so).

Historic Artist Research - students will research an historically significant metalworker who utilized some or all of the techniques from this class. They will create five powerpoint slides about the individual's work according to a proscribed format to be shared with the class. Upon viewing the class's combined presentation, students will be asked to answer a reflective question. See assignment rubric for evaluation criteria.

Sketchbook Bingo - This is an ongoing series of exercises designed to generate inspiration while you accomplish your technical demonstration pieces. The intent is to get you looking at and thinking about hollow forms and utensils as well as visit historic examples and affiliated decorative techniques. Each entry is evaluated as pass/fail in accordance with whether or not the entry was completed on time and per instructions.

Demonstration pieces: A series of demonstrations will be given and students will be expected to produce a prescribed example of the following:

- Synclastic raised hemisphere
- Chasing and repoussé lotus
- Hot forged steel hook
- Box with hydraulically die formed lid and hidden hinge

Demonstration pieces will be evaluated by the degree to which they achieve the technical prescriptions.

Tea Time - Students will thoughtfully design and flawlessly execute an object used in the preparation and/or consumption on tea utilizing at least one technique taught this semester. This project will be evaluated by the following criteria in equal measure:

- Craftsmanship/Functionality
- Composition
- Creativity/Concept
- Complexity

Final exam - This will be in person and based on technical terminology and procedures covered over the course of the semester.

Participation - Student are expected to contribute to the community of learning through their participation in group feedback and shared enlightenment. Your participation grade is based on you participation in the online posting forum and feedback on other student work therein.

Student Evaluation

The final grade will be composed of the following elements in these percentages:

Meet Ana/Introduce Yourself	1%
Syllabus Agreement	1%
Historic Artist Research	5%
Sketchbook Bingo	10%
Demonstration Pieces	44%
Tea Time	29%
Final Exam	5%
Participation	5%

Written or recorded feedback will be given to each student after pieces have been evaluated if the piece was turned in on time. It is important that assignments are present for the class discussion in order that we may all benefit from one another's different perspectives.

Proposed Semester Schedule:

Date	Activities
M 1/11 Week 1	Before: <ul style="list-style-type: none"> • Go on the Canvas page for this class • Look over the syllabus • Look at the seating chart to see where you sit • ALWAYS reach out with questions: ana.lopez@unt.edu, or through Canvas. During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Review syllabus, health and safety, supplies, assignments, schedule • Demo rotation groups introduced • Sketchbook Bingo Introduced • Lockers, monitors, pick up things left from the fall
W 1/13	Before: <ul style="list-style-type: none"> • Get tools and materials • For class this week you will need copper, work gloves, drying cloth, rubber cement, sketchbook • Do Meet Ana/Introduce Yourself Canvas Discussion Assignment DUE January 18 by 2pm • Watch Health and Safety video • Take Health and Safety Quiz DUE January 18 by 2pm • Read syllabus thoroughly • Complete Syllabus Agreement/Quiz DUE January 18 by 2pm • Start working on sketchbook bingo • Watch this week's demonstration videos for your group During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Group 1 prepares and starts raising • Group 2 prepares and starts chasing • Pickle projects: learning illustrator, using it to design a die, designing box for die formed lid, sketchbook bingo • Blacksmiths: <ul style="list-style-type: none"> • 8am open sign-up • 9am Bartz • 10am Biehl
M 1/18	Martin Luther King Day - no classes
Week 2	have fun...be safe...have fun...be safe...have fun...be safe...have fun...be safe...
W 1/20	Before: <ul style="list-style-type: none"> • Watch this week's demo videos for your group • Work on sketchbook bingo • Watch LinkedIn Learning about vectors in Illustrator

Date	Activities
	During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Sketchbook Bingo 1 Due at start of class • Group 1 continues raising • Group 2 continues chasing • Pickle projects: learning illustrator, using it to design a die, designing box for die formed lid, sketchbook bingo • Blacksmiths: <ul style="list-style-type: none"> • 8am open sign-up • 9am Crawford • 10am Hernandez
M 1/25 Week 3	Before: <ul style="list-style-type: none"> • Work on sketchbook bingo • Watch LinkedIn Learning about vectors in Illustrator • Watch this week's demo videos for your group During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Group 1 continues raising • Group 2 continues chasing • Pickle projects: illustrator die design, working on box for die formed lid, sketchbook bingo • You should have a vector design by today • Blacksmiths: <ul style="list-style-type: none"> • 8am open sign-up • 9am Holguin • 10am Johnson, E.
W 1/27	Before: <ul style="list-style-type: none"> • Work on sketchbook bingo • Watch this week's demo videos for your group During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Sketchbook Bingo 2 Due at start of class • Tentative: laser use demo • Make FabLab appointment to cut your acrylic • Group 1 continues raising - due on Monday!!! • Group 2 continues chasing - due on Monday!!! • Pickle projects: box with die formed lid, sketchbook bingo • Blacksmiths: <ul style="list-style-type: none"> • 8am open sign-up • 9am Johnson, V. • 10am McDowell
M 2/1 Week 4	Before: <ul style="list-style-type: none"> • Work on sketchbook bingo • Watch this week's demo videos for your group • Finish up raising/chasing and repousse

Date	Activities
	During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Group 1 raising due at start of class • Group 2 chasing and repousse is due at start of class • Group 1 starts chasing and repousse • Group 2 starts raising • Pickle project: box with die formed lid • Blacksmiths: <ul style="list-style-type: none"> • 8am open sign-up • 9am Rabensberg • 10am Reger
W 2/3	Before: <ul style="list-style-type: none"> • Work on sketchbook bingo • Watch this week's demo videos for your group During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Sketchbook Bingo 3 Due at start of class • Group 1 continues chasing • Group 2 continues raising • Pickle project: box with die formed lid • Blacksmiths: <ul style="list-style-type: none"> • 8am open sign-up • 9am Santos • 10am Schneider
M 2/8 Week 5	Before: <ul style="list-style-type: none"> • Work on sketchbook bingo • Watch this week's demo videos for your group During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Group 1 continues chasing • Group 2 continues raising • Pickle project: box with die formed lid • Blacksmiths: <ul style="list-style-type: none"> • 8am open sign-up • 9am Sun • 10am Turner
W 2/10	Before: <ul style="list-style-type: none"> • Work on sketchbook bingo • Watch this week's demo videos for your group

Date	Activities
	During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Group 1 continues chasing • Group 2 continues raising • Pickle project: box with die formed lid • Sketchbook Bingo 4 Due at start of class • Blacksmithing: open sign-up
M 2/15 Week 6	Before: <ul style="list-style-type: none"> • Work on sketchbook bingo • Watch this week's demo videos for your group During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Group 1 chasing and repousse due at start of class • Group 2 raising due at start of class • Work on Box with Die Formed Lid • Blacksmithing: open sign-up
W 2/17	Before: <ul style="list-style-type: none"> • Work on sketchbook bingo During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Sketchbook Bingo 5 Due at start of class • Work on Box with Die Formed Lid • Blacksmithing: open sign-up
M 2/22 Week 7	Before: <ul style="list-style-type: none"> • Finish forged hook and die formed box • Work on sketchbook bingo During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Forged hook and box with die formed lid due by end of class • Image of die formed box must be posted to Padlet by end of class
W 2/24	Before: <ul style="list-style-type: none"> • Draw 10 different ideas for Tea Time Project • Work on sketchbook bingo • Comment on all colleagues' Die Formed Boxes by 2pm 3/1 During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Sketchbook Bingo 6 Due at start of class • Students bring in 10 sketches for their Tea Time Project
M 3/1 Week 8	Before: <ul style="list-style-type: none"> • Comment on all colleagues' Die Formed Boxes by 2pm 3/1 • Work on sketchbook bingo

Date	Activities
	During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Begin Tea Time Project
W 3/3	Before: <ul style="list-style-type: none"> • Work on sketchbook bingo During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Sketchbook Bingo 7 Due at start of class (last one) • Work on Tea Time Project
M 3/8 Week 9	Before: <ul style="list-style-type: none"> • Start research on your historic artist During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Work on Tea Time Project
W 3/10	Before: <ul style="list-style-type: none"> • Work on Historic Artist Research • Comment on all Colleagues' Homage to Albers by 2pm 3/15 During: <ul style="list-style-type: none"> • Arrive at 2 pm, go to your assigned room and desk, wipe down surfaces • Bring in 10 different sketches or 3d models for Open Project ideas
M 3/15 Week 10	Before: <ul style="list-style-type: none"> • Work on Historic Artist Research During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Start Open Project
W 3/17	Before: <ul style="list-style-type: none"> • Work on Historic Artist Research - due Monday 8am During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Work on Open Project - You should be half done fabricating
M 3/22 Week 11	Before: <ul style="list-style-type: none"> • Historic Artist Research Due through OneDrive by 8am 3/22 During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Work on Open Project
W 3/24	Before: <ul style="list-style-type: none"> • Watch combined colleagues' Historic Artist Research Presentations and answer short essay question. Response due by 8am 3/29

Date	Activities
	During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Work on Open Project
M 3/29 Week 12	Before: <ul style="list-style-type: none"> • Watch combined colleagues' Artist Research Presentations and answer short essay question. Response due by 8am 3/29 During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Work on Tea Time Project
W 3/31	Before: <ul style="list-style-type: none"> • Work on Tea Time Project During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Work on Tea Time Project
M 4/5 Week 13	Before: <ul style="list-style-type: none"> • Work on Tea Time Project During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Work on Tea Time Project
W 4/7	Before: <ul style="list-style-type: none"> • Work on Tea Time Project During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Work on Tea Time Project - you should start doing cleaning and finishing work
M 4/12 Week 14	Before: <ul style="list-style-type: none"> • Work on Tea Time Project During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Work on Tea Time Project
W 4/14	Before: <ul style="list-style-type: none"> • Work on Tea Time Project During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Finishing up Tea Time Project
M 4/19 Week 15	Before: <ul style="list-style-type: none"> • Work on Tea Time Project During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Finish and start to photograph Tea Time Project

Date	Activities
W 4/21	Before: <ul style="list-style-type: none"> • Review technical vocabulary in preparation for the final exam review • Photograph Tea Time Project
	During: <ul style="list-style-type: none"> • Arrive at 8 am, go to your assigned room and desk, wipe down surfaces • Review for final exam • Photograph finished Tea Time Project, post to Padlet by 11am • Turn in physical Tea Time Project to Ana by end of class
M 4/26 Finals week	Before: <ul style="list-style-type: none"> • Study for final • Give feedback on colleague's Tea Time Projects on Padlet DUE by 8am 4/26
	<ul style="list-style-type: none"> • Take final exam in person 8am • Clean studio • Tea Time Projects Returned

Class Participation Expectations

You are expected to assist in maintaining a classroom environment that is conducive to learning. In order to assure that everyone has an opportunity to gain from time spent in class, unless otherwise approved by the instructor, you are prohibited from using cellular phones or beepers, checking your email or surfing the internet, updating your social networking sites, eating or drinking in class, making offensive remarks, reading newspapers or magazines, sleeping or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in, minimally, a request to leave class, which will be counted as an unexcused absence.

Attendance and Late Work Policies:

Attendance is mandatory for all class times unless otherwise announced by the instructor. Attendance will be taken at 8:05. Students who arrive after 8:05 will be counted tardy, which is the equivalent of 1/3 of an absence. Students who arrive after 8:05 must ensure that the instructor has noted their arrival for the purpose of attendance taking. Students who miss more than an hour of class will be counted as absent for that day. Each student is allowed no more than three unexcused absences. Each additional unexcused absence will result in the student's final grade for the course being lowered by one third of a letter grade.

When absent, students are still responsible for material covered, announcements made, handouts given, and amendments made to course requirements. Late work must be turned in at the next class the student attends. Late work may be subject to a penalty of 10% deducted from the assignment's value per class day the work is late if the reason for its tardy delivery has not been excused.

Excused absences for temporary illnesses or extenuating circumstances will be processed through the Dean of Students office. The following is from the Dean of Students website

<https://deanofstudents.unt.edu/resources/temporary-illness>

Students may request temporary illness/disability assistance by completing the following steps:

- Provide the Dean of Students Office with a letter from a medical doctor, or other qualified professional, which must contain the following:
- A diagnosis and how the diagnosis impacts your academic pursuits
- Duration of illness, from the time it began to impact you academically and until the expected recovery
- Documentation may also include recommendations for academic adjustments (e.g. excuse absences, tardiness leniency, extend time for tests)
- After receiving the medical documentation, the Dean of Students Office will send an email to your professors or provide you with an absence verification slip to take to your professors.
- It is your responsibility to discuss your absence with your professors and work out the details of the adjustments.

Remember, your professors have no obligation to make temporary adjustments. If they decline to allow adjustments you may need to drop the course, ask for an incomplete (i) (if allowed), or repeat the class in the future.

The UNT Policy on attendance may be found here:

https://policy.unt.edu/sites/default/files/06.039_StudAttndandAuthAbsence.Pub2_.19.pdf

COVID-19 Impact on Attendance

While attendance is expected as outlined above, it is important for all of us to be mindful of the health and safety of everyone in our community, especially given concerns about COVID-19. Please contact me if you are unable to attend class because you are ill, or

unable to attend class due to a related issue regarding COVID-19. It is important that you communicate with me.

If you are experiencing any symptoms of COVID-19 (<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>) please seek medical attention from the Student Health and Wellness Center (940-565-2333 or askSHWC@unt.edu) or your health care provider PRIOR to coming to campus. UNT also requires you to contact the UNT COVID Hotline at 844-366-5892 or COVID@unt.edu for guidance on actions to take due to symptoms, pending or positive test results, or potential exposure. While attendance is an important part of succeeding in this class, **your own health, and those of others in the community, is more important.**

Class Recordings & Student Likenesses

Synchronous (live) sessions in this course may be recorded for students enrolled in this class section to refer to throughout the semester. Class recordings are the intellectual property of the university or instructor and are reserved for use only by students in this class and only for educational purposes. Students may not post or otherwise share the recordings outside the class, or outside the Canvas Learning Management System, in any form. Failing to follow this restriction is a violation of the UNT Code of Student Conduct and could lead to disciplinary action.

Face Coverings

Face coverings are required in all UNT facilities. Students are expected to wear face coverings during this class. If you are unable to wear a face covering due to a disability, please contact the Office of Disability Access to request an accommodation. UNT face covering requirements are subject to change due to community health guidelines. Any changes will be communicated via the instructor.

Academic Integrity

According to UNT Policy 18.1.16, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, falsification, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University.

ADA Accommodation

UNT makes reasonable academic accommodation for students with disabilities. Students seeking accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide a student with an accommodation letter to be delivered to faculty to begin a private discussion regarding one's specific course needs. Students may request accommodations at any time, however, ODA notices of accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of accommodation for every semester and must meet with each faculty member prior to implementation in each class. For additional information see the ODA website at disability.unt.edu.

Content

Content in the arts can sometimes include works, situations, actions, and language that can be personally challenging or offensive to some students on the grounds, for example, of sexual explicitness, violence, or blasphemy. As the College of Visual Arts and Design is devoted to the principle of freedom of expression, artistic and otherwise, and it is not the college's practice to censor these works or ideas on any of these grounds. Students who might feel unduly distressed or made uncomfortable by such expressions should withdraw at the start of the term and seek another course.

Health & Safety Area Specific Information: Metalsmithing & Jewelry

1. Hazards of Media (inherent)

Chemicals, Metal Etching and Plating

Chemicals used for patinas and plating are toxic and corrosive. There are mild acids and chemicals that are not compatible. Electrical currents are used in some etching/plating processes.

Enamels

Enamels contain silica and heavy metals. Enameling kilns can damage eyes over prolonged unprotected use (IR 3 glasses are recommended for enameling and are available in the studio). High temperatures are used for enameling, be cautious of hot surfaces and objects.

Epoxy, Natural and Synthetic Polymers, Resins

Epoxy, resins, glues, plastics/acrylics and body fillers produce toxic fumes, skin irritants and generate both toxic and liquid hazardous waste. All of these (including some stones) can contain silica causing toxic fumes when sanded. Some polyester resins, plastics, urethane rubbers, and silicon rubbers are used in mold making and can be even more toxic and irritating to the skin when in liquid form.

Metalworking

Metalworking produces toxic and/or irritating dust and fumes. Welding produces toxic fumes and radiates UV light. Soldering produces toxic, carcinogenic fumes from flux. Be cautious of hot objects. Soldering bricks and pumice rocks can create irritating dust.

Corrosion products used in patinas (oxides, carbonates, sulfides, or sulfates) produce toxic fumes and irritating dust. Pickle is corrosive and toxic. Flammable gases are used for soldering and annealing metal.

Buffing and grinding equipment involve high speed rotating disks/wheels that are dangerous if not used properly. Lifting heavy equipment and repetitive processes can lead to strain injuries. Electric tools cause vibrations, which can also lead to strain on the muscles. Noise from percussive equipment and tools can damage hearing.

Metal Casting Techniques

Metal casting produces toxic fumes. Investment contains silica and produces irritating dust when mixed. Casting torch will damage eyes if proper IR glasses/goggles aren't worn. Be cautious of hot surfaces and objects.

Stones, Plaster, and other Dusts, Clays and Powders

Minerals in stone, ceramics, glass, and abrasives (e.g. flint, steatite, dolomite, fluorspar stone, silica, garnet) produce toxic and irritating dust. Plaster is calcium sulfate, which produces toxic, irritating dust during mixing.

Spray Lacquer, Paint, Stains, Solvents, Paint Stripper and other Aerosol Sprays

Spray paint, stains, paint strippers and other aerosol sprays produce toxic fumes, skin irritants and generates liquid hazardous waste in excess paint and solvents used in cleaning (acetone, mineral spirits).

Solvents

Solvents are flammable and toxic. All solvents can cause defatting of the skin and dermatitis from prolonged or repeated exposure. Turpentine can also cause skin allergies and can be absorbed through the skin. Acute inhalation of high concentrations of turpentine or mineral spirits can cause narcosis (dizziness, nausea, fatigue, loss of coordination, coma, etc.) and respiratory irritation. Chronic inhalation of turpentine can cause kidney damage and possible respiratory allergies. Chronic inhalation of large amounts of mineral spirits could cause brain damage. Odorless mineral spirits or turpenoid, which have had the aromatic hydrocarbons removed, are less hazardous.

Pitch, Wax

Pitch is flammable. Overheating pitch degrades it and releases toxic fumes. Never use a torch to heat pitch. Wear eye protection and gloves when heating or breaking pitch.

Overheating wax can release flammable vapors and irritating, toxic fumes. Boiling wax is dangerous and can cause burns.

2. Best Practices

- Only use tools and equipment that instructors have demonstrated during class time.
- If you are ever unsure or uncomfortable using a tool or machine please talk to an instructor or technician. Plan ahead and ask your instructor to demonstrate the tool/machine during class time so that you are properly trained and comfortable to use it on your own during open studio hours.
- Wear the proper safety equipment for each process.
- Wear appropriate personal protection while working at your bench. Eye protection should be worn while using a jeweler's saw, files or flex shaft (prescription glasses are suitable). Dust masks should be worn when using abrasives in flex shaft.
- Wear appropriate gloves when using any type of solvent, acid or chemical. (Long chemical gloves are in the Chemical Room; disposable nitrile gloves are provided throughout the studio.)
- Read and follow posted signs about equipment usage, safety gear and clean-up.
- ALWAYS clean up messes produced by any material or practice to prevent from exposing others to the hazards of that material and/or practice. Use alcohol to clean up resin/mold making materials. Use a wet sponge to clean up enameling areas.
- Use yellow sorbent pads or spill kit to soak up liquid/chemical spills. If chemical is considered hazardous, place soaked pads in plastic bag or bucket, label and notify area technician. Area of spill should be cleaned with mild detergent and water.
- Ear protection is advised when forging, raising, etc. Foam earplugs are provided by the studio.

- Wearing a dust mask when enameling is advised. Enamels contain silica and heavy metals.
- Avoid contaminating enamels and powder coat with other colors, firescale, other debris.
- The powder coat oven should not be used for any other purpose.
- Do not change programs of Casting or Enameling Kilns. Alert an instructor or technician if a program has been changed.
- Denatured Alcohol, solvents, spray lacquer and finishing wax must be stored in the Flammable Cabinet. Never store alcohol lamps with alcohol in them. When pouring Denatured Alcohol, place lamp or container in sink and use a funnel to minimize spills.
- Flammable gases are located at soldering and annealing stations. Only use gases through the control of torch handles. Torches may only be used at designated soldering/annealing stations.
- Flammable items, including paper towels, pitch and wax, may not be used at soldering/annealing stations.
- Use ventilation for tasks that create fumes, including soldering, pickling and enameling.
- There are many hazardous chemicals stored in the Chemical Room as well as equipment that can cause you harm if used improperly. Return chemicals to the proper storage place. Notify area technician of missing labels or damaged containers. All containers and funnels should be thoroughly rinsed and dried before and after use. If a container or other item has a dedicated chemical use, do not use it for any other purpose.
- Label patina containers with your name, type of patina, date and class. Store container in Blue Corrosive cabinet. See area technician about proper disposal of chemicals.
- Do not leave hot plates unattended, unplug when finished using. Never allow patina or wax to boil. Use heat guns to heat pitch.
- Use copper tongs for taking work in and out of pickle solution. Avoid getting pickle on skin or clothing, avoid splashes and spills. Use baking soda to neutralize pickle spilled on clothing.
- Do not pour pickle solution down sink drains. Dispose of used pickle by carefully pouring into collection container (labeled 'Spent Pickle'). Use a funnel to pour and wipe up any spilt liquid.
- Do not leave Liver of Sulfur out. If the solution can still be used, pour into the labeled brown bottle. If the solution is spent, pour in collection container (labeled 'Spent Liver of Sulfur').
- Sharp objects, including X-acto and saw blades, should be disposed of in approved 'Sharps' container. Metal should be disposed of by placing into scrap bins, never regular trash.
- Skin and eye irritation can occur when using mild acids. If acid (including pickle) come in contact with skin, wash the area with soap and water. If acids come in contact with eyes, rinse eyes at an eyewash station for 15 minutes. Eyewash stations are located at the sinks in room 170 and 172. If irritation persists, seek medical attention.
- When working in the studio outside of class time, be aware of other students in other areas of the metals studio. Identify the monitor on duty in case you have a question or emergency. If you are the last to leave the studio, turn off all equipment (the only exception is kilns being used for casting). Properly turn off soldering torches and bleed hoses.
- Monitors will unlock studio rooms 174-178 during their shifts. Rooms should be locked at the end of the night or if no monitor is available.
- Monitors and graduate students are not to not share lock combinations with other students.
- Put away tools when you are done using them so that they are available for other students.
- Use sign-in sheets for processes including electroforming, etching, and forging. This allows other students to use the equipment in shifts. Failure to sign-in and follow rules may result in loss of privileges to use that equipment.
- Use spray lacquer or paint in spray booth only, never in the Metals studio.
- Do not use damaged tools or equipment. Report damages immediately to an instructor or technician. If damages occur outside of class time, place a visible sign on the damaged equipment.
- Drink containers must have lids. Food is not allowed in the studios, go to designated area to eat.

3. Links to more information on Health & Safety for the discipline

<https://info.risd.edu/environmental-health-safety/#environmental-health-+-safety>

<https://www.ganoksin.com/topic/jewelry-studio/workshop-health-and-safety/>

<https://www.ganoksin.com/article/potentially-harmful-metalsmithing-substances/>

<http://www.silversmithing.com/1safety.htm>

https://www.depts.ttu.edu/art/Programs/graduate/studio_art/jewelry/includes/jewelry_studio.pdf

Chemical Safety:

<https://ehs.princeton.edu/laboratory-research/chemical-safety>

4. Area Health & Safety Rules

All users of the studio classrooms are expected to follow studio area rules at all times. If you have any questions, ask your instructor or area technician.

- Follow all CVAD Health and Safety handbook guidelines (the handbook should be reviewed by your instructor and can be found here: <https://art.unt.edu/healthandsafety>).
- Follow the CVAD Waste Management Chart in the classroom and other health & safety guidelines posted.
- In case of emergency, call campus police at (940)565-3000 or call 911.
- File an incident report (forms may be found in the CVAD H&S handbook and in the main office) within 48 hours of the event.
- Do not prop classroom doors. Doors are to remain closed to ensure the building HVAC and ventilation work properly.
- No food or drink in the studio
- Practice best practices for material handling. If you have questions about a material, ask your instructor for guidance.
- Do not spray any aerosols in any CVAD classroom/studio/doorway or exterior wall/floor. Use the spray booths provided.
- No consumption of alcohol or smoking is permitted in the studios.
- Clean up after yourself- wipe down counters and benches with a wet sponge, sweep or vacuum floors.
- Do not block doorways or block access to lights.
- Do not remove furniture from rooms or borrow furniture from rooms without permission from the area coordinators.
- Do not create “daisy chains” with multiple electric cords.
- No hazardous materials should be poured down sinks.
- Store all flammables in the flammable cabinet. Keep flammable cabinet closed at all times.
- First aid kits are found in each studio. Notify your instructor or area technician if supplies are low.
- Report any safety issues IMMEDIATELY to your instructor or area technician.
- All courses must engage in an end of the semester clean up.
- Children, pets and non-enrolled persons are not allowed in the studio for their own safety.
- Follow all appropriate safety procedures as demonstrated by instructor. Do not use any tools or equipment that you have not been trained on.
- Always wear closed-toe shoes. Tie long hair back and avoid wearing loose clothing or dangling jewelry (hazardous with power tools and soldering).
- Studio Monitors are not allowed to teach new techniques or supervise casting.
- Follow proper safety procedures for turning gas on and off at soldering and annealing stations.
- Wear a dust mask when appropriate (enameling, sand blasting, powder coating, etc.).
- Eye protection should be worn during most processes. Safety glasses, face shields, tinted kiln and casting goggles are available throughout the studio.
- If you are the last person to leave the studio, turn off any equipment. If you are unsure about anything ask your instructor, technician or a studio monitor.
- Do not use Chemical Room unless under special instruction. Refer to posted signs for proper procedures, safety and clean-up.
- Turn ventilation hoods and snorkels on for processes such as soldering, pickling, enameling, casting, etc.
- Only use Buffing Room equipment if you have been trained by an instructor. Follow posted directions on safety and clean-up.
- Do not enter the Graduate Studio without permission.
- Safety Data Sheets (SDS) for studio materials are maintained by area technician.
- Follow the **CVAD CONTAINER POLICY** (see below)

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There are 3 types of labels used in CVAD.

All containers must have a label identifying the contents at all times.

UNIVERSAL LABELS (while chemical is in use):

All secondary/satellite containers for hazardous materials (or what might be perceived as hazardous -i.e. watered-down gesso, graphite solutions, satellite containers of solvents, powders, spray paints, fixatives, oils, solvents) must be marked with content, your name and the date opened. All unmarked containers will be disposed of with no notice. Labels can be found in the studios. All containers must be marked with your name, contents and date opened.

UNIVERSAL WASTE LABELS (when material is designated as waste):

All containers solely containing a universal waste must have a universal waste label identifying the contents as “Universal Waste - (type of universal waste)” that are designated as waste for proper disposal. The label must also include the date the first item of universal waste entered the container.

HAZARDOUS WASTE LABELS

All hazardous waste containers must have a label identifying the contents as hazardous.

Labels should include all constituents in the waste mixture as well as an approximate percentage of the total for that item. All constituents should equal 100%.

Emergency Notifications and Procedures

UNT Emergency Guide: <http://guidebook.com/app/emergency/guide/unteitmerge...>

UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to the course management system for contingency plans for covering course materials.

Sexual Discrimination, Harassment and Assault

UNT is committed to providing an environment free of all forms of discrimination and sexual harassment, including sexual assault, domestic violence, dating violence, and stalking. If you (or someone you know) has experienced or experiences any of these acts of aggression, please know that you are not alone. The federal Title IX law makes it clear that violence and harassment based on sex and gender are Civil Rights offenses. UNT has staff members trained to support you in navigating campus life, accessing health and counseling services, providing academic and housing accommodations, helping with legal protective orders, and more.

UNT's Dean of Students' website offers a range of on-campus and off-campus resources to help support survivors, depending on their unique needs: http://deanofstudents.unt.edu/resources_0. UNT's Student Advocate she can be reached through e-mail at SurvivorAdvocate@unt.edu or by calling the Dean of Students' office at 940-565-2648. You are not alone. We are here to help.

Course Risk Factor

According to University Policy, this course is classified as a category three course. Students enrolled in this course are exposed to significant hazards which have the potential to cause serious bodily injury or death. In this class, those risks are related to the use of power tools, chemical substances, open flames and similar metalworking equipment. Students enrolled in this class will be informed of potential health hazards or potential bodily injury connected with the use of materials and/or processes and will be instructed about how to proceed safely.

Students who are pregnant or will become pregnant during the course of the semester are advised to check with their doctor immediately to determine if any additional risks are reason to postpone this course until a later semester. Upon request, your professor will provide a list of chemicals and safety issues for your doctor to review. Material Safety Data Sheets are available on all chemicals. It will be up to you and your doctor to determine what course of action to take.

Financial Aid Satisfactory Academic Progress

A student must maintain Satisfactory Academic Progress (SAP) to continue to receive financial aid. Students must maintain a minimum 2.0 cumulative GPA in addition to successfully completing a required number of credit hours based on total registered hours per term. Students cannot exceed attempted credit hours above 150% of their required degree plan. If a student does not maintain the required standards, the student may lose their financial aid eligibility.

If at any point you consider dropping this or any other course, please be advised that the decision to do so may have the potential to affect your current and future financial aid eligibility. Please visit <http://financialaid.unt.edu/satisfactory-academic-progress-requirements> for more information about financial aid Satisfactory Academic Progress. It may be wise for you to schedule a meeting with an academic advisor in your college or visit the Student Financial Aid and Scholarships office to discuss dropping a course before` doing so.

The instructor retains the right to change the syllabus at any time with or without notice.

Course Contract

The Quiz on Canvas will take the place of the following two pages of information and signatures.

I _____ (print) acknowledge that I have read the course syllabus. I understand the course structure, grading and attendance policies as well as the risk factor rating. I hereby agree to the syllabus and its provisions.

Course number and section : ART 3403.501

Risk Rating: 3

Student e-mail address *that you check regularly*:

Signature

Date

Faculty Name: Ana M. Lopez

Signature

Date

PERMISSION TO USE STUDENT ARTWORK

We would like to use your work to spread the news about the amazing art made at CVAD! Please help us put your talent on display by allowing us to photograph and exhibit your art on CVAD's social media, websites and paper advertising. Thank you!

I hereby grant permission to UNT and CVAD to use, copy, reproduce, publish, distribute or display any and all works created in my classes while at UNT. Additionally, I consent to the use of my name to coincide with images of my artwork.

1. Scope of Permission. This permission extends to the use of the described work and images of such work: (1) for academic purposes in order to demonstrate examples of student work to current and future UNT students; (2) for public display in the galleries or on the campus of the UNT or on the UNT website; (3) for promotional materials created by UNT in all forms of media now known or later developed, including but not limited to exhibition catalogues, direct mail, websites, advertising, social media, and classroom presentations. My permission is on-going, but can be revoked by giving the professor of record for this course written notice of my wish to revoke permission and use of any images of my artwork. UNT will have three months from the date of my notice to stop all use agreed with this permission.

2. Certificate of Ownership. I am the owner of all work submitted and the work is not subject to any restriction that would prevent its use consistent with this permission. All aspects of the work are original to me and have not been copied. I understand that as owner of the work I have the right to control all reproduction, copying and use of the work in accordance with U.S. copyright laws.

3. Privacy Release. I hereby authorize and consent to the release, maintenance and display of my name if necessary and any other personally identifiable information that I have provided in connection with the work and its use described in this Agreement.

4. Signature. By signing below I hereby grant the permissions indicated above. I understand that this grant of permission relates only to the use of the described work. This is not an exclusive right and I may sell, give or otherwise transfer the rights to such work to others on a non-exclusive or exclusive basis. However, in the event that I do sell, give or otherwise transfer ownership or the exclusive right to use my work to another party, I will notify UNT immediately in writing through the professor of record for this course. UNT will have three months from the date of my notice to stop all use in accordance with this permission.

Printed name: _____

Signature: _____

Date: _____

Name of Course: _____