

## **Art 445: Metal**

**Units: 2.0**

### IMPORTANT:

The general formula for contact hours is as follows:

**Courses must meet for a minimum of one 50 minute session per unit per week over a fifteen-week semester. Standard fall and spring sessions require a final summative experience during the University scheduled final exam day and time.**

(Please refer to the *Contact Hours Reference*, located at [arr.usc.edu/services/curriculum/resources.html](http://arr.usc.edu/services/curriculum/resources.html).)

**Location:** WAH 108

**Instructor: Brian Olson**

**Office:** WAH 108

**Office Hours:** Friday before class, please make appointment

**Contact Info:** bolson@usc.edu

**Sculpture Technician: Jay Lizo**

**Hours of Service:** M-F 9-5

**Contact Info:** lizo@usc.edu.

## Course Description

Designed to explore techniques and philosophies of working with ferrous and non-ferrous metals. Explorations in welding and forging. Combining metals with other traditional and non-traditional sculpting materials will be encouraged in order to give a strong understanding in the versatility of art metals and it's application. Students will be urged to produce individualized items and developing an understanding of art metal and its place in the fine arts field.

## Learning Objectives

Upon completion of this course students will be able to:

- Safely work with mild steel to construct complicated and unique 2D and 3D objects.
- Discuss and use elements and principles of metalsmithing as they relate to the practice of fine art
- Use various metal working tools (welder, plasma cutter, forge, box break, roller, shear) to create artwork.
- Cast metal (bronze and/or aluminum) using the "lost wax" process

**Prerequisite(s):** N/A

**Co-Requisite(s):** N/A

**Concurrent Enrollment:** N/A

**Recommended Preparation:** None

## Course Notes

In addition to the scheduled classes, **you will be required to attend the bronze pour, (usually scheduled on a Thursday night from 9 pm – 2 am between week 11-14.)** You will be released from class on the following Friday morning and have an additional class release to compensate.

## Required Resources

Notebook and safety gear including leather boots and gloves.

## Required Readings and Supplementary Materials

Sculpture Tools, Materials and Techniques - Second Edition, by Wilbert Verhelst, Prentice-Hall 1988

Sculpture Kit (Available from tool crib.)

## Description and Assessment of Assignments

Introduction to metal concepts in the creation of fine art. Equal emphasis on safety, technical proficiencies and effective solutions in working with a variety of metals.

## Grading Breakdown

Students will be graded primarily on completed bronze project. The midterm test, quizzes (verbal and written) and attendance will have impact on the final grade.

Including the above detailed assignments, how will students be graded overall? Participation should be no more than 15%, unless justified for a higher amount. All must total 100%.

Assignment	Points	% of Grade
Bronze Assignment	50	50%
Welding Assignment	25	25%
Participation	15	15%
Midterm	10	10%
<b>TOTAL</b>	<b>100</b>	<b>100%</b>

## Grading Scale

Course final grades will be determined using the following scale

A	95-100
A-	90-94
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	59 and below

## Assignment Submission Policy

All projects must be photographed and submitted via email.

## Grading Timeline

Announce a standard timeline for grading and feedback.

## Additional Policies

Students are required to attend class regularly. You will not be able to use any equipment that was discussed in Safety lectures or demonstrated during your absences (or missed being late for class). This will impact your ability to perform assignments and result in a lower grade.

## Course Schedule: A Weekly Breakdown

The following schedule will provide an overview of assignments and dates, which we will try to maintain. These dates may change due to weather, University events and bronze pour (see course notes above.)

Classes will meet weekly and be composed of two parts. The first part will consist of a lecture and demonstration; the second part will be a lab time for students to gain hands on experience. Students who miss any safety information will not be able to use equipment.

### IMPORTANT:

In addition to in-class contact hours, all courses must also meet a minimum standard for out-of-class time, which accounts for time students spend on homework, readings, writing, and other academic activities. **For each unit of in-class contact time, the university expects two hours of out of class student work per week over a semester.**

(Please refer to the *Contact Hours Reference* at [arr.usc.edu/services/curriculum/resources.html](http://arr.usc.edu/services/curriculum/resources.html).)

	Topics/Daily Activities	Readings and Homework	Deliverable/ Due Dates
<b>Week 1</b>	Introduction to metal Lecture on safety equipment and gear.		
<b>Week 2</b>	Introduction to welding: oxy-acetylene.	Hand out 1st project	Project 1 due week 6
<b>Week 3</b>	Welding demonstration & cutting demonstration with the wire feed welder and the plasma cutting system.	Review notes from previous week and practice	
<b>Week 4</b>	Introduction/Safety/Demo on MIG Welding & Plasma Cutter.	Review notes from previous week and practice	
<b>Week 5</b>	Sheet metal fabrication: Introduction/Safety/Demo on the box break, slip roller, shear. Demonstrate various techniques of mechanical fastening.	Review notes from previous week and practice	
<b>Week 6</b>	Lecture and demonstration on metal forging	Review notes from previous week and practice	Project 2 is due week 15/Finals week
<b>Week 7</b>	Midterm Test	Hand out 2nd project	Bring in Sketches for Project 2 week 8
<b>Week 8</b>	Lecture & demonstrate the "lost wax" process of bronze casting.		
<b>Week 9</b>	Demonstration on mold making	Work on project	
<b>Week 10</b>	Demonstration on gating and venting		Complete wax assignment

<b>Week 11</b>	Demonstration on working with microcrystalline and paraffin.		Complete Sprue
<b>Week 12</b>	Lecture and demonstration on investments including coating the wax mold.		Complete Investment
<b>Week 13</b>	Lecture on “burning out” investments.		
<b>Week 14</b>	Intro/Safety/Demo – Pouring Bronze.		
<b>Week 15</b>	Demonstration on finishes.		Final critique on 3rd project and
<b>FINAL</b>	Demonstration on shooting images for Final Portfolio and Submission		Date: For the date and time of the final for this class is consistent with <i>USC Schedule of Classes</i> at <a href="http://www.usc.edu/soc">www.usc.edu/soc</a> .

## Statement on Academic Conduct and Support Systems

### Academic Conduct

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Part B, Section 11, “Behavior Violating University Standards” <https://policy.usc.edu/student/scampus/part-b>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct>.

Discrimination, sexual assault, intimate partner violence, stalking, and harassment are prohibited by the university. You are encouraged to report all incidents to the *Office of Equity and Diversity/Title IX Office* <http://equity.usc.edu> and/or to the *Department of Public Safety* <http://dps.usc.edu>. This is important for the health and safety of the whole USC community. Faculty and staff must report any information regarding an incident to the Title IX Coordinator who will provide outreach and information to the affected party. The sexual assault resource center webpage <http://sarc.usc.edu> fully describes reporting options. Relationship and Sexual Violence Services <https://engemannshc.usc.edu/rsvp> provides 24/7 confidential support.

### Support Systems

A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the *American Language Institute* <http://ali.usc.edu>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* <http://dsp.usc.edu> provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu> will provide safety and other updates, including ways in which instruction will be continued by means of Blackboard, teleconferencing, and other technology.