

ART 0022 - METAL ARTS

Catalog Description

Hours: 90 (36 lecture, 54 laboratory)

Description: Exploration of metalworking techniques, design principles, and material use for sculpture, functional and nonfunctional art forms. Common welding processes, forming, bending, and blacksmithing techniques for ferrous and nonferrous metals. (CSU)

Course Student Learning Outcomes

- CSLO #1: Discuss, describe, analyze & critique own metal sculpture along with other students' work.
- CSLO #2: Create original metal work using appropriate tools and technology.
- CSLO #3: Create original ferrous metal work by process of conception, design, execution, finish, presentation and installation.
- CSLO #4: Apply proper and safe methods for using metalworking equipment, welding equipment, related metalworking equipment, and chemicals needed for finishes.

Effective Term

Fall 2024

Course Type

Credit - Degree-applicable

Contact Hours

90

Outside of Class Hours

72

Total Student Learning Hours

162

Course Objectives

Lecture Objectives:

1. Analyze works through demonstrations and lectures, and discussion of design, execution, finish, presentation, and installation.
2. Identify, discuss, and use appropriate tools and technology (such as oxygen/acetylene welding, MIG welding, plasma cutter, forming molds, forging furnace), to create art works.
3. Identify safe methods for using metalworking equipment, welding equipment, related metalworking equipment, and chemicals needed for finishes.
4. Explain and define basic visual vocabulary for analyzing art works.
5. Examine and discuss the historical aspects of both design and techniques in metal art.

Laboratory Objectives:

1. Create individual works by a process of concept development, design, execution, finish, presentation, and installation.
2. Select, describe, and use appropriate tools and technology (such as oxygen/acetylene welding, MIG welding, plasma cutter, forming molds, forging furnace), to create art works.

3. Select, describe, and apply proper and safe methods for using metalworking equipment, welding equipment, related metalworking equipment, and chemicals needed for finishes.
4. Organize and process information/tasks both orally and in written formats.
5. Critique art work both orally and in written formats using proper terms.

General Education Information

- Approved College Associate Degree GE Applicability
 - AA/AS - Fine Arts
- CSU GE Applicability (Recommended-requires CSU approval)
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)

Articulation Information

Methods of Evaluation

- Classroom Discussions
 - Example: Students will begin classroom discussions from the beginning of the concept & design development. By contributing to in-class discussions, students will be able to demonstrate their understanding of their ideas and offer thoughts & suggestions to fellow classmates. Classroom discussions are also inclusive of the critiques required at the end of the assignment.
- Projects
 - Example: Students will be required to complete approximately 3 assignments throughout the semester. These assignments include concept development and design of a cardboard/ mat board maquette, successful execution of the project at hand, and verbal knowledge and assessment of their assignments.
- Reports
 - Example: Reports include assigned artist research as well as gallery visits papers. Written reports include student research, observational writing, and critical observations based on class information and topics.
- Skill Demonstrations
 - Example: Students will be evaluated on formal critiques of assigned student projects/artworks; the ability to choose the appropriate techniques (forming, forging, welding and finishing) and materials to create fabricated metal art works of their concepts will be the main focus for evaluation.

Repeatable

No

Methods of Instruction

- Laboratory
- Lecture/Discussion
- Distance Learning

Lab:

1. The instructor will lecture on integrating concept, design, and technology as it pertains to metal art works. The students will then take mat board and create a maquette (small scale model) of their first assignment taking into consideration the elements and principles of design in 3-dimensional works as well as transferring the techniques to metal.

Lecture:

1. The instructor will lecture and demonstrate for all project techniques and will lead a critique of finished project works, evaluating: craftsmanship, proper choice of materials and how students best realized their initial vision.

Distance Learning

1. Visually oriented image presentation lecture demonstrating the creation of a pattern-making and the reproduction of an object in metal via the creation of a pattern. Video examples of contemporary artists using pattern making in their metal artworks. Students will then be guided through a step by step process of creating the pattern for abstract forms depicting movement which will begin in cardboard and constructed in steel. Students submit progress to the instructor for feedback. Completed projects are posted to the discussion board and critiqued through written format using appropriate vocabulary and terminology pertaining to the basic elements and organizing principles of three-dimensional art. Active and relevant participation includes students responding to each other's comments in the discussion board.

Typical Out of Class Assignments Reading Assignments

Students will be required to read from various sources; 1. Read handout on surface decoration techniques and discuss applicable and appropriate use for your project. 2. Read on the elements and principles as seen in metal arts and choose artists whose work will be evaluated and discussed based on the elements & principles.

Writing, Problem Solving or Performance

1. Maintain a notebook of lecture material and a sketchbook of ideas and designs for class projects. 2. Design and execute metal forms, using formed, forged and welding techniques as indicated in the course content. 3. Apply appropriate finish surface decoration using patinas, heat oxides and organic coatings (paint). 4. Gallery/Museum/Artist research and assessment paper.

Other (Term projects, research papers, portfolios, etc.)

Out of class work will include both library and internet research. Portfolio of students finished works will be presented during formal critiques. The writing assignment will require the student to develop a course notebook to include lecture notes, concept drawings, and out of class research.

Required Materials

- Artist Blacksmith Sculpture: The Art of Natural Metalwork
 - Author: David Freedman
 - Publisher: CreateSpace Independent Publishing Platform
 - Publication Date: 2016
 - Text Edition: 1st
 - Classic Textbook?:
 - OER Link:
 - OER:
- A Universe of Metal Sculpture
 - Author: Henry Harvey
 - Publisher: Schiffer Publishing

- Publication Date: 2010
- Text Edition:
- Classic Textbook?:
- OER Link:
- OER:
- Welder's Handbook
 - Author: Richard Finch
 - Publisher: HPBooks
 - Publication Date: 2007
 - Text Edition: 2nd
 - Classic Textbook?:
 - OER Link:
 - OER:
- METAL Design and Fabrication
 - Author: David and Susan Frisch
 - Publisher: Watson-Guption
 - Publication Date: 1998
 - Text Edition: 1st
 - Classic Textbook?:
 - OER Link:
 - OER:
- Metal Working
 - Author: Skill Institute Press
 - Publisher: Skill Institute Press
 - Publication Date: 2010
 - Text Edition: 1st
 - Classic Textbook?:
 - OER Link:
 - OER:

Other materials and-or supplies required of students that contribute to the cost of the course.

Welding gloves, Ear plugs, Safety glasses, Close-toed shoes, Cotton/Natural Fiber Clothing, Sketchbook