

CALHOUN COMMUNITY COLLEGE

WELDING DEPARTMENT

WDT 182: Special Topics

Project-Based Learning Project
Metalheads: The Welder as Artist

OVERVIEW

The Calhoun Welding Department will be hosting an exhibition and sale of original metal artwork at the Alabama Center for the Arts in downtown Decatur tentatively scheduled for April 28, 2022. All artwork will be designed, created, and made by the students enrolled in this course from Fall 2021 and Spring 2022. Artwork will be judged by metal design experts, and the winners will be awarded cash prizes.

OBJECTIVE

To plan, design, and create at least one metal decorative and/or utilitarian artwork (Examples: benches, archways, bottle trees, lawn/garden metal art stakes, chairs, tables, etc.).

PROJECT DUE DATE

Fall 2021 semester ---- Friday, December 3, 2021

Spring 2022 semester ---- Friday, April 22, 2022

DETAILS

Each student is to plan, design, and create at least one metal artwork of the student's choice. Plans and designs must be completed in collaboration with the CAD Department and/or the Visual Arts Department. An instructor representing both departments will meet with us on Class Day 3 to begin that process. Please see bottom of page for more contact information. All designs must be approved by the welding instructor before proceeding. All designs must be deemed in good taste (no vulgar or offensive sculptures or designs!). All welding work must be started and completed in the Calhoun Welding Lab. Students who require more welding time may make appointments to visit the lab at other times.

In addition to the metal artwork, each student must prepare a tri-fold tabletop display board to accompany the design. The board should include the following: Name of artwork, picture of the plan/blueprint, short explanation for the chosen design (100 word maximum), at least 4 other pictures that show the construction process (Designing, welding, painting, etc), and one 8 x 10 photo of finished product.

Students may complete more than one project and enter into the exhibition. However, only one will be graded and judged for prizes.

Students are encouraged to attend the exhibit, but are not required. Family and friends are invited to attend, as well.

MATERIALS

All metal, paint, and equipment will be furnished by the Calhoun Welding Department. If a student wants to use other materials, those materials must be pre-approved by the welding instructor. No reimbursement for such materials will be provided. As such, all projects will be deemed the property of Calhoun Community College.

EXHIBITION SALES AND PRIZES

Student entries will be judged by a panel of art, welding, and metal experts who are not affiliated with Calhoun Community College, the Alabama Center of the Arts, or Athens University. In a consultation with the Calhoun Welding Dept and Visual Arts Department instructors, all entries will be priced for sale. Each student will receive 25% of the sale price of his/her/their item.

Additional prizes will be awarded based on judging criteria:

Grand Prize: \$300

Second Prize: \$200

Third Prize: \$100

Fan Favorite (determined by secret ballot survey of exhibition attendees): \$50

Prize money may be picked up at the exhibit or Calhoun Welding Dept office. No prize money will be mailed or delivered. Any unsold exhibits will be displayed for sale at the May 2022 Third Friday in Downtown Decatur. Students will be contacted to pick up any proceeds from those sales.

CONTACT INFORMATION

- Calhoun Welding Department
Jacob Sprinkle 256-306-2660 jacob.sprinkle@calhoun.edu
- Design Drafting Department
David McLendon 256-260-4307 david.mclendon@calhoun.edu
- Visual Arts Department
Kathryn Vaughan 256-306-2695 kathryn.vaughan@calhoun.edu

EXAMPLES OF PROJECTS







EVALUATION

Students will:

- Apply safety regulations, procedures, and precautions of the GTAW process.
- Demonstrate correct techniques for setting up, adjusting, and selecting materials for various GTAW machines and equipment, including tungsten electrodes, machine controls and settings, and shielding mixtures of gases.
- Demonstrate correct techniques for joint designs used in the GTAW process.
- Demonstrate correct welding techniques for carbon steel in the 3-F vertical position and in the 4-F overhead position.
- Utilize the GMAW process to demonstrate proper corner-joint fillet weld techniques for single and multiple passes, including flat fillet welds in the 1-F position, horizontal fillet welds in the 2-F position, vertical up-and-down fillet welds in the 3-F position, and overhead fillet welds in the 4-F position.
- Produce a drawing for a specific welding project.
- Interpret blueprints to produce a welding project, including laying out, cutting, and welding.
- Perform CAC cutting operations according to specifications.

GRADING RUBRIC

Tri-Fold Display Board (20% of total grade)

CRITERIA	SUPERIOR 15 points	ADEQUATE 10 points	BELOW EXPECTATIONS 5 points	NOT EVIDENT 0 points
Overall appearance	Neat. Orderly. Easy to read. Colorful.	A few edges may be ragged. Glue/tape showing. Colorful.	Monochromatic.	N/A
Name of artwork	Easy to find and distinguish on board.	Chosen font is easy to read, but the name is too small for the size of the board.	Chosen font is difficult to read. Name is difficult to find on board.	No name
Copy of plan/blueprint	Large to be read and interpreted. Neatly printed.	Large to be read and interpreted, but color of ink makes it difficult to read.	Too small to distinguish details.	No copy of plans/blueprints.
Work Sample Photographs	All 4 photos with each having good photo quality AND skill easily identifiable	Only 3 photos having good photo quality AND skill easily identifiable OR the required 4 photos are blurry	Only 1 or 2 photos having good quality	No photos
Work Sample Narrative	Sample meets appropriate length; no grammatical errors; easy to read on board	Sample has 1 or 2 grammatical errors and meets appropriate length.	Sample contains 3 or more grammatical errors.	No narrative
Photo of finished product	Clear photo of required size. Easy to find on board.	Clear photo, but not required size.	Blurry photo.	No photo
Submitted on due date	Submitted on or before due date	Submitted within 3 days of due date	Submitted on final exam date (Fall 2021) or date of exhibition (Spring 2022).	No submission

The board will be graded solely by Jacob Sprinkle.

Metalwork Exhibit (80%)

CRITERIA	SUPERIOR 25 points	ABOVE AVERAGE 20 points	ADEQUATE 15 points	BELOW EXPECTATIONS 10 points
Elements of Design	Shows an awareness of design principles; Finished product meets plan/blueprint specs	Shows an awareness of design principles; Finished product DOES NOT meet plan/blueprint specs	Shows lack of planning of design. Lack of symmetry and/or appropriateness of size is evident.	Minimal design is evident
Creativity	Unusual/unique design that stands out in a crowded field.	Good work, but design is obviously based on other artwork.	Assignment was completed with little original thought.	No evidence of original thought.
Craftsmanship	Welding cuts/bonds are very difficult to see; appears seamless and smooth.	A few cuts/bonds can be seen, but overall looks like a manufactured retail item.	Minimal welding skills evident. No pride in work. Lacks finishing touches.	Cuts/bonds can be easily seen. No smoothness in the finished product. Sloppy execution.
Visual Appeal	Finish is beautiful and appropriate for object. First look is exciting, inviting, or intriguing.	Product is retail worthy, but has a few flaws.	Product is sturdy and well made, but the overall finish looks sloppy.	Finish is dull and unappealing to eye. Final product would not be suitable for retail sales.

Each of the three judges AND each of the project instructors (Sprinkle, McLendon, Vaughan) will complete a rubric for each project. An average will be taken of those 6 score sheets for the class grade.

An average of the 3 judges' score sheets will be used to determine the prize winners. In the event of a tie, the average of the 6 score sheets will be used to determine the winners.

In addition to the prize money, the Grand Prize winner will receive 5 extra points on his overall project score.

ADDITIONAL RESOURCES

Weld.com channel on YouTube

Pinterest

Home and Garden decor retail and online stores