

# **Mission Valley ROP**

## **Welding & Metal Joinery Syllabus**

### **2023-2024**

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Mission Valley ROP Center

Monday-Friday: Bldg K1  
Block 1: 8:30am - 10:30am  
Block 2: 10:45am-12:45pm  
Block 3: 1:45pm – 3:45pm

#### **Overview of the Course :**

This course prepares students in core skills needed for the Welding and Metal Joining industry. This course is an introduction to welding and an exposure to metalworking basics. Students will learn proper safety practices associated with welding, perform basic welds using different types of welding equipment, and identify properties of ferrous and nonferrous metals. Students will learn the use of basic hand tools and cutting & preparation techniques as they relate to welding and fabrication. Students will take part in group and individual projects throughout the semester.

#### **Course Objectives:**

Students will learn and practice general shop, tool, and equipment safety. Students will demonstrate proper usage of basic hand tools, as well as specialty tools. Students will learn how to set up and use Oxy Fuel Torch Cutting equipment and make various cuts in various positions on Carbon steel. Students will learn how to set up and use Stick, Mig and Tig welding equipment and make welds on various joints in various positions. Students will also be taught how to operate basic metal working tools and equipment such as grinders, band saws, shear and press break. Throughout the course students will learn about and practice professionalism and develop career building skills.

#### **Supplies Provided:**

- American Welding Society's *Fundamentals of Welding* Curriculum
- S/P2 curriculum and certification
- Lab materials for hands-on training
- Necessary tools and equipment
- Personal Protective Equipment (PPE)

#### **Supplies Needed (Every Day) :**

- Pencil or pen (black/blue only) and Notebook
- Safety glasses and PPE are mandatory at all times in the laboratory

## Safety

Safety is our #1 priority. The Welding Shop has many hazardous situations. Students are allowed to use equipment only after receiving instructions from the instructor and demonstrating a clear understanding. **Students will participate in the S/P2 and OSHA 10 safety training** earning many certificates as well as having a review of safety protocols each time they use a piece of equipment. Any infraction of established safety rules will result in dismissal from class for a period of time and a negative affect to their grade.

Long hair must be tied back and all jewelry removed before entering the shop. No headphones, cell phones or other electronic devices are allowed in the shop or the classroom without the instructor's permission. Protective clothing (coveralls, shop coats, hoods, gloves and other appropriate clothing), must be kept clean and in good repair. No open toe shoes or sandals, no shorts or tank tops. Small storage lockers are provided.

**Safety glasses are to be worn at ALL times while working in the shop and yard. This is NOT optional.** Standard safety glasses and over-prescription glasses will be provided. You are allowed to provide your own glasses only if they are ANSI Z87/Z87+ rated.

## Cleanup

At the end of class, each and every student is responsible for cleanup.

- All work is to stop when told to (last 20 min of the class.)
- The tools are to be cleaned and correctly put away in their respective places.
- The area where the student was working is to be completely cleaned.
- Students are NOT to crowd around and line up at the door

Students will not be dismissed unless the shop is secure and all tools are returned.

## Attendance, Participation and Citizenship

This is an interactive class and the course work deals with issues that significantly affect a student's success on the job. Much of the work will be done in class. Because of this, the work is difficult to make up. Make up assignments will be given for excused absences only, which include medical, legal or bereavement circumstances. Failure to complete make-up assignments will adversely affect your grade.

## Classroom Rules

Students are to:

- Work safely, efficiently, and cleanup their mess
- Arrive to class **on time**, be prepared, and act professionally at all times
- Show respect for instructor and staff, for fellow students, and for our facility and tools- **ABSOLUTELY NO HORSEPLAY OR BULLYING WILL BE TOLERATED.**
- Abide by MVROP student policies

Students are NOT to:

- Perform any welding task without using the appropriate safety PPE.
- Perform any welding task without the instructor's knowledge or permission
- Use ANY electronic devices unless directed by the instructor.
- Enter the instructor's office without permission, or touch the instructor's computer at any time.
- Use tools from the instructor's toolbox without permission.
- Leave class without being dismissed by the instructor.

## **Grading Policy**

Grading is based on your completion of all assignments, attendance, participation and professionalism, and quizzes and tests. Letter grade will be based on total points available. Grades are weighted as follows:

- 70% Skill Demonstration
  - Students must master specific Welding Skills—TBD-AWS skills and competencies
- 20% Academic-Assignments/Chapter Work, Exams and Quizzes
  - American Welding Society work, SP/2, written projects, tests, quizzes, etc.
- 10% Employability—attendance, tardies, participation, work ethic
  - Each student may earn 5 points daily for participation and on time attendance. If a student is Tardy, the most they could earn for that day is 4 points.
  - If a student is absent, an email (preferred, [jstucker@mvrop.org](mailto:jstucker@mvrop.org)) or an explanation call to the MVROP front desk (510-657-1865) is expected.
  - An excess of 3 absences in a week (or consecutive days) without a doctor's note will result in no points for that week.
  - Unexcused absences will result in 0 points for the day.

A 90 - 100 %

B 80 - <90%

C 70 - <80%

D 60 - <70%

F <60%

Students who complete Welding and Materials Joining with a grade of 'B-' or better are eligible for a certificate of completion.

# **Ancillary MVROP**

## **Welding Lab RULES**

- ***Class begins and ends in the classroom so you can sign IN and OUT each day after cleaning up tools and shop.***
- ***The shop and classroom remain immaculate and dust free at all times.***
- ***After logging/signing in, you will deposit your cell phone in the phone locker because cell phones are not to be used in the welding classroom or in the laboratory.***
- ***Respect yourself and nurture your desire to learn.***
- ***Respect fellow students and do not impede their opportunity to learn.***
- ***Respect school staff and facilities.***
- ***Consume all food and drink outside of the welding lab***
- ***Make sure you are wearing appropriate Personal Protective Equipment (PPE) at all times in the laboratory***
- ***Always wear safety glasses in the shop area***
- ***Wash hands after class.***
- ***Return all tools to correct storage space.***
- ***Before leaving the shop, clean the work area.***

***Note: Student and Parent/Guardian must sign and return this page provided you understand the class syllabus.***

**I have read and agree to abide by the rules and regulations of the Mission Valley ROP Welding and Metal Joinery course as described in the above syllabus.**

Print Student Name \_\_\_\_\_

Student Signature \_\_\_\_\_ Date: \_\_\_\_\_

Print Parent/Guardian Name \_\_\_\_\_

Parent/Guardian Signature \_\_\_\_\_ Date: \_\_\_\_\_

Parent/Guardian email \_\_\_\_\_

Parent/Guardian phone number \_\_\_\_\_