

Introduction:

ROP Welding Technologies is a course designed to acquaint students with the basic principles of welding, and to prepare for the safe use of hand and stationary tools while completing basic welding projects. Materials and techniques for Welding are reviewed and students are provided with a variety of suitable projects for the beginning level welder.

Skills learned in Welding Technologies:

1. Responsibility as a welder in a potentially dangerous environment, each student will demonstrate and practice safety for each tool or machine used in a welding.
2. Technological literacy by reading blueprints, drawing and shop manuals to complete projects.
3. Critical thinking when planning projects, from design sketches to finished shop drawings with complete cut list.
4. Understanding the importance of math, science, reading and writing.

Course outline for Welding Technologies:**Starting the course**

- Registration paperwork for ROP Welding Technologies
- Emergency Notification and Shop Rules Form
- Review general shop safety
- Machine operation procedures and specific safety operations

Building Welding Technologies skills:

- Design and measuring
- Reading plans or blueprints
- Construction math
- Selecting the proper materials and techniques
- Using hand tools and portable power tools
- Using stationary power tools and welders

Classroom Facilities and Equipment:

Rim of the World High School is fortunate to have a full welding shop that includes the following equipment: 3 SMAW stations, 4 GMAW welders, a GTAW station, a 4x8 CNC Plasma Table and 8 OFW stations. The shop has a small computer lab for CAD design work and Internet access for students to research projects.

Grading:

Students' final grades will be broken down in the following groups, Projects 60%, Tests and Quizzes 20%, Paperwork and Clean-up 10%. Students will pass the safety exam before they will be allowed to use any power tools or start their projects. Classroom participation is mandatory for successful completion of this course. Points will be deducted for lack of participation.

Grading Criteria for Projects:

4 points (A) – Excellent: Bead is uniform width all along the length of weld. Has a smooth appearance, constant speed and has nice rounded look.

3 points (B) - Proficient: Bead maintains width and length, shows small blemishes and has some high and low spots.

2 points (C) - Basic: width not uniform, speed varies; ripples tend to be coarse, lack of uniformity throughout weld.

1 points (D) – Below Basic: Weld is cut off in places, not uniform, too fast, too slow, does not blend into single bead.

0 points (F) – No Assignment Received: Student did not turn in project by due date. Students will not be able to improve grade on a project that receives 0 points.

Welding Shop Rules and Policies:

1. It is my responsibility to see that all projects are turned in on time and recorded by the instructor into his grade book.
2. I have been informed that theft, willful abuse of tools, equipment or supplies may result in being dropped from this class.
3. Class procedures and rules have been explained to me, including: tardies, truants, safety, clean up and dismissal.
4. Attendances will follow the school policy.
5. All students working in the Welding Shop shall wear shoes at all times. No open toe shoes or shorts.
6. I understand that I must have a Bathroom Pass or blue written pass signed by the instructor and his permission in order to leave the classroom. Students leaving class without permission will receive an OCR.
7. Horseplay, running, grabbing each other, or throwing objects will not be tolerated. Infraction of this rule may cause dismissal from this class.
8. I understand that I may not cut any materials without paying the full amount of that material to be cut. All payments must be made to the ASB office.
9. The drop cords that hang from the ceiling of the shop shall not be hit or caused to swing. Students doing this may be dropped from the class.
10. I understand that I may be dropped and reported to security for making any drug paraphernalia or weapons. Students may also be expelled from school and fined.

11. I understand that I may not use any power tools without the instructor's approval, even after I have passed the safety test. After receiving permission from the instructor, I must have a partner before operating any power equipment.
12. I understand that I must report all accidents, even minor ones to the instructor.
13. Eye protection will be worn when working with or observing machinery.
14. I understand that there is to be no grinding of aluminum, brass or copper on the hard grinder.
15. I understand that violation of any shop rule is sufficient grounds for permanent removal from welding class

Penalties for breaking shop rules:

1ST Offense – Verbal warning and loss of shop privileges

2nd Offense – Two Day suspension and phone call to parent / guardians.

3rd Offense – Dropped from welding class with an "F"

Note: Breaking of school rules (fighting, drugs, etc.) carries established Rim of the World High School District penalties.

I have reviewed this syllabus with my parents / guardians Date: _____

Student Name: _____ Signature: _____

Parent / Guardian: _____