

Welding I Technology

Course Description:

The Welding I Technology class is an introduction to the most common types of welding procedures. The student will have hands on experience using different welding processes such as shielded metal arc welding, oxy-acetylene welding/cutting and gas metal arc welding. Good shop procedures and proper safety practices will be emphasized throughout the course.

Course Objectives:

The student will be able to:

1. Identify tools and machines used in welding industry, list safety rules for each machine, and operate each efficiently.
2. Develop skills in the area of Oxy-Acetylene, Shielded Metal Arc and Gas Metal Arc welding.
3. Weld coupons will be strong and neat in appearance.
4. Select the correct electrode for arc welding according to its tensile strength, flux coating, position, it is to be used and other factors.
5. Identify different metals used in welding industry by shape and composition.
6. Understand the basic metallurgy and used it to prevent distortion.
7. Identify welding symbols and read welding blueprints.
8. Develop good work habits – such as proper shop procedures, tools maintenance and good clean up practices.
9. Construct Job Resume.

Course Outline:

Safety Procedure and quizzes
Tools and equipment identification, operation and safety
Gas welding process
Flame cutting
Arc welding process
Lab – required gas and arc welding assignments
Metallurgy - iron production
Spark Test
Distortion
Gas Metal Arc Welding (MIG)

Learning Activities:

A variety of activities will be used during the semester. There will be lectures given, reading and research assignments and videos shown and lab time in the welding shop.

Materials Required:

1. A pencil or pen and 3-ring binder should be in the classroom at all times.
2. Eye protection worn at all times while in the lab.
3. 100% cotton coveralls should be worn at all times.
4. Leather boots
5. Welding Gloves
6. Bare handled pliers
7. Locks
8. Hat

All items can be purchased locally. Please see my website for supply list.

All personal property must be marked with your name and class period.

Grade Criteria and Grading Procedures:

Grades will be determined on a percentage of total points possible. These points will be compiled from quizzes, tests, work sheets, student's weekly evaluations, notebooks, lab work and final tests.

Grading Scale:

- 90-100% A
- 80-89% B
- 70-79% C
- 60-69% D
- 0-59% F

Quizzes and Test are weighted at 10% of the overall grade.
Worksheets and Notebooks are weighted 10% of the overall grade.
Weekly Evaluations are weighted 40% of the overall grade.
Coupons and Lab Work are weighted 40% of the overall grade.

CLASSROOM EXPECTATIONS

1. Be Responsible
 - a. Be in the classroom when the bell rings
 - b. Have all materials ready to go
 - c. Keep a binder of notes, handouts, and work returned for the entire year
 - d. Be prepared to not use your electronic device unless directed by me

2. Be Involved
 - a. You will get so much more out of class if you participate
 - b. Do your work
 - c. TRY!
 - d. Ask questions if you need help
 - e. Do not use your electronic device unless directed by me
 - f. YOU ARE RESPONSIBLE FOR GETTING MATERIALS AND HOMEWORK WHEN YOU ARE ABSENT!!!

3. Be Respectful
 - a. No profanity or disrespectful language
 - b. You do not have the right to interfere in your classmates' education
 - c. Please wait your turn to talk
 - d. Maintain personal space
 - e. Do not use your electronic device unless directed by me
 - f. Communicate with me if you are having a conflict someone in the class, including me

4. Be a Graduate
 - a. Take pride in your work
 - b. Set a goal and go for it
 - c. Pass this class
 - d. Utilize all supports that are provided by our school or community
 - e. Do not use your electronic device unless directed by me
 - f. Get involved in extra-curricular activities

If you cannot meet classroom expectations or follow directions, you will first receive a warning. If you continue to make poor choices, a written referral will be sent to your

principal. I want every student to reach their maximum potential in my class and will not tolerate poor behavior that infringes on other people's right to learn.

Homework Policy:

Some lab work may require more time than the class time will allow. Students may work in the welding shop before or after school or any other convenient time with the instructor's permission.

CONTACT INFORMATION

Cindy Galbavy

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406-324-2180

<http://hhs.helenaschools.org>

This is where you will find the most information.



*Syllabus is subject to change.

Please return bottom portion of this paper with your contact information.

Student name: _____

Parent(s)/Guardian Name: _____

I look forward to working with your son/daughter and would like to communicate with you throughout the year. Please provide the best way to get in contact with you, whether it is your work phone, cell phone, or e-mail.

Best way to contact me is: _____

HHS Welding 1 Year-at-a-Glance

	Unit 1 General Shop Safety	Unit 2 Oxyfuel Gas Welding (OPW)	Unit 3 Shielded Metal Arc Welding (SMAW)	Unit 4 Cutting Processes	Unit 5 Welding Symbols	Unit 6 Gas Metal Arc Welding (GMAW)	Unit 7 Metal Sculpting Art Projects	Unit 8 Career Search and Resume	Unit 9 Employability Skills
Unit Length	2 Weeks On-going	9 Weeks Overlap	9 Weeks Overlap	2 Weeks Overlap	2-3 Weeks Overlap	9 Weeks Overlap	18 Weeks Overlap	3 days	3-5 days
Formative Assessments	Unit 1 Formative Assessments	Unit 2 Formative Assessments	Unit 3 Formative Assessments	Unit 4 Formative Assessments	Unit 5 Formative Assessments	Unit 6 Formative Assessments	Unit 7 Formative Assessments	Unit 8 Formative Assessments	Unit 9 Formative Assessments
Unit Assessments	Unit 1 Unit Assessments	Unit 2 Unit Assessments	Unit 3 Unit Assessments	Unit 4 Unit Assessments	Unit 5 Unit Assessments	Unit 6 Unit Assessments	Unit 7 Unit Assessments	Unit 8 Unit Assessments	Unit 9 Unit Assessments
Supporting Documents (Examples: Rubrics, Work Samples, Anchor Papers, etc.)	Unit 1 Supporting Documents	Unit 2 Supporting Documents	Unit 3 Supporting Documents	Unit 4 Supporting Documents	Unit 5 Supporting Documents	Unit 6 Supporting Documents	Unit 7 Supporting Documents	Unit 8 Supporting Documents	Unit 9 Supporting Documents