**Alma High School**

**1500 North Pine Ave.**

**Alma, Mi. 48801**

**(989)463-3111**

Welding Instructor: Alan Dillon

The Welding Program will prepare students in the following areas; oxyfuel welding and brazing; shielded metal arc welding; gas metal arc welding; flux-cored arc welding; and gas tungsten arc welding. Students will be introduced to weld joint design, blueprint reading, reading welding symbols, and the use of welding related equipment and hand tools. Students will spend approximately 85% of class time in the welding lab with actual hands-on training on welding machines and related equipment.

You will find enclosed in this packet handouts explaining classroom policies and procedures, shop and safety rules, and a syllabus for the first year that includes grading policies. Please read the following information.

* Classroom Policies
* Shop Safety Rules
* Equipment Safety Rules
* Syllabus
* Grading Policies

Staff Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_

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

Parent Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_

**Alma Welding**

Welcome to Welding I & II for the 2015-2016 school year. I hope the time you spend here will be enjoyable and productive.

Alma High School will provide for use of equipment, supplies, and safety items. You will however need to provide wearing apparel suitable for the welding field. This should include the following items.

* Heavy duty coveralls or blue jeans and an appropriate shirt free of holes, tears, and frays to help prevent fires. Any student not properly dressed will not be allowed to participate.
* Leather work boots 6” or higher. No other shoes will be allowed.
* Each student will be issued safety glasses, welding gloves, welding jacket, and a locker.

In the event that a student is missing any of these items he/she will not be allowed to participate in the shop that day. Alma High School provides each student a locker to store their clothes. AHS is not responsible for any locker left open at any time or clothing/safety glasses/ gloves left out in the lab. Students are responsible for lost items and will be charged to replace safety glasses and gloves.

I have read this letter and understand what materials are required to participate in the welding lab.

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

Parent Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_

**Alma Welding**

Shop Safety Rules

1. Safety glasses must be worn at all times in the lab.
2. Return tools and organize work area to shop standards.
3. No horseplay of any type at any time.
4. Do not operate equipment until you have passed the safety test.
5. Read and understand all posted safety rules before using equipment.
6. Appropriate work clothes must be worn in order to work in the lab. (coveralls, blue jeans, cotton shirt w/o frays, cuffs and holes)
7. Never work or cut w/o using safety and protective gear. (welding jacket, welding gloves, work boots, face shields, ect.)
8. No student shall use or adjust another students welder or torch.
9. Only one student at a work station at a time.

10. No student shall at any time bring a BIC type lighter to the welding area (potential fire or explosive hazard)

Alma Technical Center-Welding I & II

Welding Classroom Policies

The following policies were developed to define the students’ responsibilities and promote an effective learning environment.

* Students are expected to follow the AHS Student Handbook policies regarding classroom attendance and student behavior.
* Any student wishing to leave must ask the instructor and use the welding pass.
* Each student is responsible for the equipment issued and it is expected that it will be returned in the same condition as when it was issued, or the student will pay to replace it.
* Each student is responsible to inspect his/her welding station and or welder and to report any defect found or they will be held accountable for the defect and pay to fix or replace the damage.
* Each student is to return any equipment used from the tool room when they are finished.
* Writing on table tops, walls, or welders will not be tolerated.
* Any intentional damage or vandalism will not be tolerated.
* No student will repair or fabricate anything without the written permission of the instructor! This includes projects for students and instructors from other programs.
* Students are not allowed in the instructor’s office, desk, and storage areas without permission.
* No pop or food is permitted in the lab. Food and drink must be consumed in the classroom area. Failure to clean up after yourself and the privilege will be lost.
* Cell phones may be used between classes, electronic devices are not allowed in welding class without instructor’s permission. Students who violate this rule will lose their equipment to the office; they may face further discipline action.
* Polite behavior is expected; fighting and profane language is not tolerated and will be dealt with accordingly.

Any violations of shop safety, equipment safety, or classroom policies will result in the following.

1st offense verbal warning

2nd offense referral

3rd offense possible removal from class

I have read and understand the classroom policies for this class.

Student Signature\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Course Syllabus**

**Welding I**

**Emphasis: Shielded Metal Arc Welding**

**Instructor:** Mr. Dillon

**Classroom #:** G709

**Phone:** 989-463-3111 Ext.6097

**E-mail:** [adillon@almaschools.net](mailto:adillon@almaschools.net)

**Course Description:** Introduction to Shielded Metal Arc Welding safety, welding terms and definitions, electrode selection, and welding joints. Lab includes starting an arc, running beads, pad welding, groove welds, and fillet welds. Introduction to Oxyacetylene safety, welding and brazing will also be covered.

**Course Focus:** The course will provide the student the theory and application of SMAW to make welds in the flat, horizontal, vertical, and overhead position using E6010 and E-7018 electrodes

**Course Outline:**

* Occupational Orientation
* Safety and Health of Welders
* Shielded Metal Arc Welding (SMAW)
* Thermal Cutting Processes
  + Oxyacetylene Cutting
  + Plasma Arc Cutting
  + Air Carbon Arc Gouging

**Text and References:** NCCER; Welding AWS Entry Level Welder-Phase One, Pearson Prentice Hall, 2003.

Jeffus, Larry; Welding Principles and Applications Sixth Edition, Thomson DelmarLearning, 2008.

**Grading Guidelines:**

**Marking period grading**

* + - Work Ethic 40%
    - Lab/Project 40%
    - Tests/Quiz/Bookwork 20%

**Work Ethic**: Work Ethic is defined as, punctuality, safe working practices, professional behavior, follow verbal and written instructions, and shop cleanup. Work ethic will be graded daily on a 5, 4, 3, 2, 1, 0 basis with 5 being the highest score and 0 being the lowest score. An explanation of this system is as follows:

**Lab/Project**: This category consists of exercises that are self-paced using basic welding shop equipment. The Instructor will work with each individual student to assure quality work. All lab work will be graded on a 5, 4, 3, 2, 1, 0 basis with 5 being the progress to the next competency. An explanation of this system is as follows:

**Bookwork**: Technical information will be presented in the classroom; students will receive credit for completed task.

**Quiz/Test**: This category consists of assessments for written as-well-as hands-on tests and qualifications.

5 Performed tasks at a high level/demonstrated good work ethic

4 Performed tasks competently/demonstrated average work ethic

3 Performed tasks competently/demonstrated poor work ethic

2 Performed tasks limited participation/demonstrated poor work ethic

1 Limited participation

0 Did not participate

**Semester grading**

* + - 1st marking period 40%
    - 2nd marking period 40%
    - Semester exam 20%
    - (Semester exams are course requirement)

**Classroom Rules:**

1. Polite behavior is expected.
2. Students are expected to be sitting in their classroom seats when the bell rings.
3. Students are to remain in their class at all times unless otherwise given permission and a pass by the teacher to leave.
4. Students are required to wear eye, hearing, and safety protection at all times in the welding lab and other work areas.
5. Students will be required to follow all safety rules and procedures while in the welding lab and other work areas.
6. Attendance and tardy policy (Student Handbook)

**Attendance Policy**

Excessive absences can be a serious problem, and as a part of technical training good attendance habits are necessary. Positive steps will be taken in this program to develop these habits. The employer demands good work habits, and in order for the student to learn good work habits our attendance policy will require punctual and regular attendance. **Due to the nature of the class, students will receive a zero for shop/participation points for any absence not related to school activities.** Bookwork assignments, Tests, and Quizzes can be made-up the next day following an excused absence. It is the students’ responsibility to follow through on any make-up work.