**Advanced Welding I (Agricultural Education Elective I) Syllabus**

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| **Teacher: Lane Beard** | **Room: 102** |  |
| **Email:** [**lbeard@stjames.k12.la.us**](mailto:lbeard@stjames.k12.la.us)  **Conference Availability: 2:00-2:30** | **School Phone: 225-258-4571** | |

**Course Description:** (2 Carnegie units) Advanced Welding I allows seniors to develop advanced skills needed in local industry, construction, and agricultural mechanics-related careers. Units in this program include safety, shielded metal arc welding (groove welds), plate and pipe fit-up and alignment, gas metal arc welding, and gas tungsten arc welding. Students have the opportunity to earn technical college credits through dual enrollment, and continue developing their leadership skills through participation in FFA activities. Lab fee: $15.00 Prerequisites: NCCER Pipefitting in Agriscience and NCCER Welding in Agriscience.

**Required Text:** A variety of welding books, computer-based training programs and instructional aids will be used.

**Required Materials and/or Supplies:** Steel-toe Leather Boots, Welding Cap, $15.00 Lab Fee, Folder, Notebook, Pencil, and Pen

**Course Objectives**

**By the end of this course, the learner should be able to:**

* Demonstrate the use and care of appropriate personal protective equipment
* Properly use measuring and layout tools to fit metal for welding
* Safely use hand and power tools
* Relate information on construction drawings to actual locations on the print
* Communicate effectively in on-the-job situations using verbal and written skills
* Demonstrate critical thinking skills and the ability to solve problems using those skills
* Perform oxyfuel cutting
* Properly fit and align plate and pipe for welding
* Identify and explain groove welds with backing
* Set up SMAW equipment for making V-groove welds
* Perform SMAW for V-groove welds with backing in the flat, horizontal and overhead position
* Perform GMAW for fillet welds
* Perform FCAW for fillet welds
* Perform GTAW for fillet welds

**Course Content**

Grading Period 1 (Part 1)

* Safety
* Oxyfuel Cutting
* Pipefitting/Shielded Metal Arc Welding Groove Welds with backing (Flat Position)
* Identify and explain job code specifications
* GMAW Welding

Grading Period 1 (Part 2)

* Communication Skills
* Oxyfuel Cutting
* Identify and explain distortion and how it is controlled
* Pipefitting/Shielded Metal Arc Welding Groove Welds with backing (Horizontal Position)
* FCAW Welding

Grading Period 2 (Part 1)

* Pipefitting/Welding Hand Tools
* Pipefitting/Welding Power Tools
* Oxyfuel Cutting
* Fit up joints using plate and pipe fit-up tools
* Pipefitting/Shielded Metal Arc Welding Groove Welds with backing (Vertical Position)
* GTAW Welding

Grading Period 2 (Part 2)

* Proper and safe use of pipefitting/welding hand and power tools
* Cutting metal with hand and track torches
* Working safely, communicating effectively and solving problems with a team of other students
* Fitting, tacking and welding mild steel plate following industry-based standards
* Pipefitting/Shielded Metal Arc Welding Groove Welds with backing (overhead position)
* Check for joint misalignment and poor fit-up before and after welding

**It is possible that some units could be completed in a different grading period.**

**Course Requirements and Methods of Evaluation**

**Grading Period 1**

* (Homework 5%) Homework assignments will be posted weekly on the Fusion site.
* (Quizzes 20%) Quizzes will be written or performance-based. There will usually be four to five quizzes per grading period.
* (Tests 50%) Tests will be written or performance based. There are usually four to five written and performance-based tests per grading period.
* (Quarter Exams 25%) Comprehensive Quarter Exams can include a variety of types of written questions and some points can come from a pipefitting/welding performance based assessment in the shop.

**Grading Period 2**

* Same as Grading Period 1

**Class Expectations**

Once a student walks through the door, class has begun for that student. Therefore, students will begin work immediately upon entry to class. Students will be expected to attend regularly with mandated supplies. In order to supplement instruction, it is expected that all homework assignments be completed and submitted by the assigned due date.

**Policies and Procedures**

**Online Communications Policy**

The word “netiquette” is short for “Internet etiquette.” You should be aware of the common rules of netiquette for the Web and employ a communication style that follows these guidelines.

* Blog topics should be treated as serious classroom discussion only, unless noted by the teacher.
* All electronic communication between the student and teacher shall be limited to the sanctioned sources, (i.e., SchoolFusion and Moodle accounts) created for the students.
* Any electronic communication through any non-sanctioned means (i.e., texting, Facebook) is prohibited, per the district policy manual.
* [Any other school policies concerning online communications should be included here.]

**Incomplete Assignment Policy**

* As stated in the St. James Parish Pupil Progression Plan: A grade of “I” shall be given to a student on the report card for incomplete work. The academic grade assigned to the incomplete work shall be lowered as follows (excluding a student with an extenuating circumstance):

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| --- | --- | --- |
| Number of School  Days Late |  | Highest Academic Grade  Possible to Earn |
| 1 – 2 | = | B |
| 3 – 4 | = | C |
| 5-6 | = | D |
| 7+ | = | F |

* A student with extenuating circumstance shall be granted a period of time agreed upon by the student, teacher, and principal, without lowering the academic grade, after which time the preceding number of school days late shall affect lowering the academic grade. A grade of “I” shall be converted to an academic grade (A, B, C, D, or F) by the classroom teacher prior to the completion of the applicable term/school year.

**Academic Dishonesty Policy**

* As per the district student policy manual, if a student cheats on a test/assignment or plagiarizes he/she will receive one after school detention, no credit on the test/assignment, and an administrative conference.

**Procedure for Continued Learning following an Extreme Emergency**

* Please check the district, school, and class websites for announcements and information concerning continued learning following an extreme emergency. [Include any other procedures for extreme emergencies that interrupt learning here.]

**Attendance Requirements**

* If a student is absent on test day, he or she is responsible for taking the test the day he or she returns (if the absence is excused).
* The teacher will have absentee work in a folder that the student is responsible for collecting and turning in his/her make-up work.
* Refer to the Attendance Policies section of the student policy manual for more details concerning attendance requirements.

**Changes to Syllabus**

* The above schedule, policies, and procedures in this course are subject to change in the event of extenuating circumstances. All students and parents will be notified of changes.

**Read the statement below, and sign where indicated.**

By signing below, I am acknowledging that I have read the syllabus, and I understand its content. I understand that the syllabus should remain in the student’s binder [folder or whatever form of organization the teacher chooses], and it is also accessible on the teacher’s webpage for the class.

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| Student Signature |  | Date |
|  |  |  |
| Parent/guardian Signature |  | Date |
|  |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| Teacher Signature |  | Date |

Parent Contact Information

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

Parent/guardian Phone#: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian Cell Phone #: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent/Guardian E-mail address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mailing Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Town State Zip Code