# 7/27/2020

# brcc keystone logo

Baton Rouge Community College

*Academic Affairs Master Syllabus*

Date Approved: 2 August 2020

Term and Year of Implementation: Fall 2020

**Course Title:** GMAW (Fillet & Groove Welds)

**BRCC Course Rubric:** WELD 2313

**Previous Course Rubric**: WELD 2310 and WELD 2311

**Lecture Hours per week-Lab Hours per week-Credit Hours**: 1-4-3

**Per semester: Lecture Hours-Lab Hours-Instructional Contact Hours**: 15-60-75

**Louisiana Common Course Number:**

**CIP Code:** 48.0508

**Course Description:** Applies the principles of Gas Metal Arc Welding (GMAW) to prepare fillet welds and open V-groove welds in the flat, horizontal, vertical, and overhead positions. Students will also prepare spray fillet welds and spray arc groove welds in the flat and horizontal positions. This course requires a lab fee.

**Prerequisites:**  WELD 1419 and WELD 1519

**Co-requisites:** WELD 2116 and WELD 2213

**Suggested Enrollment Cap:** 20

**Learning Outcomes.** *Upon successful completion of this course, the students will be able to:*

1. Describe the safe operation of Gas Metal Arc Weld (GMAW) equipment, power source and current, shielding gases, filler metal and tools.

2. Assemble Gas Metal Arc Welding (GMAW) equipment.

3. Perform fillet welds in all positions with and without shielding gases.

4. Prepare groove welds in all positions.

5. Perform spray fillet welds and spray arc groove welds in flat and horizontal positions.

6. Apply safe housekeeping practices.

**Assessment Measures.** Assessment of all learning outcomes will be measured using the following methods:

1. Assessment measures may include, but are not limited to quizzes, in-class activities, observation, skill performances, class participation, and industry-standard proficiency exams.

**Information to be included on the Instructor’s Course Syllabi:**

* ***Disability Statement*:** Baton Rouge Community College seeks to meet the needs of its students in many ways. See the Office of Disability Services to receive suggestions for disability statements that should be included in each syllabus.
* ***Grading:*** The College grading policy should be included in the course syllabus. Any special practices should also go here. This should include the instructor’s and/or the department’s policy for make-up work. For example in a speech course, “Speeches not given on due date will receive no grade higher than a sixty” or “Make-up work will not be accepted after the last day of class”.
* ***Attendance Policy*:** Include the overall attendance policy of the college. Instructors may want to add additional information in individual syllabi to meet the needs of their courses.
* ***General Policies*:** Instructors’ policy on the use of things such as beepers and cell phones and/or hand held programmable calculators should be covered in this section.
* ***Cheating and Plagiarism*:** This must be included in all syllabi and should include the penalties for incidents in a given class. Students should have a clear idea of what constitutes cheating in a given course.
* ***Safety Concerns:*** In some courses, this may be a major issue. For example, “No student will be allowed in the lab without safety glasses”. General statements such as, “Items that may be harmful to one’s self or others should not be brought to class”.
* ***Library/ Learning Resources:*** Since the development of the total person is part of our mission, assignments in the library and/or the Learning Resources Center should be included to assist students in enhancing skills and in using resources. Students should be encouraged to use the library for reading enjoyment as part of lifelong learning.

**Expanded Course Outline:**

1. Principles of Gas Metal Arc Welding (GMAW)

2. Weld transfers

3. Weld quality

4. Components and consumables

5. Equipment assembly and operation

6. Fillet welds

7. Spray fillet welds

8. Open V-groove welds

9. Spray arc groove welds

10. Weld positions