SYLLABUS

WLDG 1428 Introduction to Shielded Metal Arc Welding

WELDING BRAZOSPORT
COLLEGE

LAKE JACKSON TEXAS

PREPARED BY: JAY BARR DATE: January 18, 2019
INSTRUCTOR

RECOMMENDED BY: _____ DATE:
DIVISION CHAIR

RECOMMENDED BY: _____ DATE:
DEAN

CLASS: WLDG 1428 INTRODUCTION TO SHIELDED METAL ARC WELDING

The Brazosport College District shall not discriminate against, or exclude participation in any benefits or activities either on the staff or in the student body, any person on the grounds of sex, race, color, religion, national origin, age, or handicap.

WLDG 1428 Introduction to Shielded Metal Arc Welding

COURSE DESCRIPTION:

An introduction to the shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet welds in various positions. (4 SCH, 2 lectures, 8 labs)

TEXT AND REFERENCES:

NCCER Level 1 provided by
The welding program

COURSE GOALS:

1. Select electrodes and amperage settings for various thicknesses of materials and welding positions; define principles of arc welding; explain electrode classifications; perform SMAW operations in various positions using selected electrodes and different joint designs.
    a. 6010 Flat beads on plate
    b. 6010 Horizontal beads on plate
    c. 6010 Vertical beads on plate
    d. 6010 Overhead beads on plate
    e. 7018 Flat beads on plate
    f. 7018 Horizontal beads on plate
    g. 7018 Vertical beads on plate
    h. 7018 Overhead beads on plate
    i. 1F Fillet weld
    j. 2F Fillet weld
    k. 3f Fillet weld
    l. 4F Fillet weld

Students who complete Welding 1428, will be able to evaluate and identify welding discontinuities and defects on fillet welds. They will also be to distinguish the different power sources and electrodes to be used.

COURSE SCHEDULE: Grades will be issued based on a 0-100 point scale in order to receive your NCCER you must score above 70 points. These six exams account for 20% of your overall grade for the class.

UNITS TEST MODULE

29101-09 WELDING SAFETY

29102-09 OXYFUEL CUTTING

29105-09 BASE METAL PREPARATION

29107-09 SMAW – EQUIPMENT AND SET-UP

29108-09 SHIELDED METAL ARC ELECTRODES

29109-09 SMAW – BEADS AND FILLET WELDS

UNIT LAB ASSIGNMENT: 50% of your grade

Beads on Plate:
6010 Flat
7018 Flat
6010 horizontal
7018 Horizontal
6010 Vertical
7018 Vertical
6010 Overhead
7018 Overhead
Fillet Welds
1F 2F 3F 4F

COURSE EVALUATION:

Student grades will be assigned according to the following criteria:

Lab work 50%
Module exams 20%
Attendance 20%
Final 10%

Grades of A through F will be assigned according to the chart below:

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

ATTENDANCE AND WITHDRAWAL POLICIES

CLASS WORK: 20% of overall grade

Students are responsible for all class work assigned during any absence. The instructor will accept work without penalty, when, in their judgment an absence could not be avoided.

ABSENCES:

Students may be dropped if they miss more than 20% of class.

Tardiness and leaving early or not participating in the day's assignment may count as an absence.

STUDENTS WITH DIABILITIES

BC is committed to providing equal education opportunities to every student. Bc offers services for individuals with special needs and capabilities including counseling, tutoring, equipment, and software to assist student with special needs. Please contact Special Populations Counselor, 979-230-3236 for further information.

ACADEMIC HONESTY

Brazosport College assumes that students eligible to perform on the college level are familiar with the ordinary rules governing proper conduct including academic honesty. The principle of academic honesty is that all work presented by you is yours alone. Academic dishonesty including, but not limited to, cheating, plagiarism, and collusion shall be treated appropriately. Please refer to the Brazosport College Student Guide for more information. This is available online at http://brazosport.edu. Click on the CATALOGS AND SCHEDULES link under STUDENTS.

Academic dishonesty violates both the policies of this course and the Student Code of Conduct. In this class, any occurrence of academic dishonesty will be referred to the Dean of Student Services for prompt adjudication, and will, at a minimum, result in 0 for that assignment in this course. Sanctions may be imposed beyond your grade in this course y the Dean of Student Services

Title IX

Brazosport College faculty and staff are committed to supporting students and upholding the College District's non-discrimination policy. Under Title IX and Brazosport College's policy FFDA (Local), discrimination based on sex, gender, sexual orientation, gender identity, and gender expression is prohibited. If you experience an incident of discrimination, we encourage you to report it. While you may talk to a faculty or staff member at BC, please understand that they are "Responsible Employees" and must report what you tell them to college officials. You can also contact the Title IX Coordinators directly by using the contact information below. Additional information is found on the Sexual Misconduct webpage at www.brazosport.edu/sexualmisconduct.

Kelli Forde Spiers, Director, Student Life and Title IX Coordinator
Office J-117D; 979-230-3355; kelli.fordespiers@brazosport.edu

Victoria Young, HR Coordinator and Deputy Title IX Coordinator
Office C-114; 979-230-3303; victoria.young@brazosport.edu

Required equipment

Welding hood with hard hat with shade 9, 10, 11 filter lens

Cotton welding cap

Leather welding gloves appropriate for welding process

Clear safety Glasses (not shaded)

Leather work type shoes or boots

Long sleeve cotton shirt

Channel lock type pliers

2) 4” C-clamps

BRAZOSPORT WELDING TECHNOLOGY
SAFETY RULES AND PRACTICES

Safety cannot be overly stressed. Each student is responsible for doing their part by abiding by the safety rules.

1) Clear safety glasses and Ear Plugs will be worn in the welding lab at all times.
2) Clear safety glasses with face shield must be worn when grinding or buffing OR clear safety glasses and a welding hood with flip lens.
3) Wear the proper clothes for welding, 100% cotton or wool clothing. Leather high top shoes or boots.
4) Never use a piece of welding or cutting equipment until you have been orientated in the safe and proper use.
5) Check grinding blades for chips or cracks before use.
6) Check welding helmets regularly for cracked lens or leaks.
7) Never handle hot metal with gloves. Use channel lock pliers.
8) Be sure all metal is secured in the welding booths.
9) No horseplay
10) CELL PHONES WILL NOT BE ALLOWED IN THE LAB OR CLASSROOM

I have read and understand the safety rules

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Syllabus Acknowledgement Form

Class: WLDG 1428 Acknowledgement of Syllabus and Policies for WLDG 1428. By signing this document. I hereby acknowledge that I have read the syllabus and the rules. Furthermore, by attaching my signature below I also agree with the following statements:

I fully understand the policies stated in this syllabus. ~ I will abide by all laboratory safety rules. ~ I will abide by the dress code for safety reason. ~ I will bring the needed materials to class. ~ I accept and acknowledge that failure to abide by these policies may have a significant impact on my grade.

Student Signature:

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