



**Purpose:** It is the intention of this Administrative-Master Syllabus to provide a general description of the course, outline the required elements of the course and to lay the foundation for course assessment for the improvement of student learning, as specified by the faculty of Wharton County Junior College, regardless of who teaches the course, the timeframe by which it is instructed, or the instructional method by which the course is delivered. It is not intended to restrict the manner by which an individual faculty member teaches the course but to be an administrative tool to aid in the improvement of instruction.

**Course Title** - Intro to Shielded Metal Arc Welding  
**Course Prefix and Number** - WLDG 1428  
**Department** - Welding Technology                      **Division** - Continuing  
**Course Type:** (check one)

- Academic General Education Course (from ACGM – but not in WCJC Core)
- Academic WCJC Core Course
- WECM course (This course is a Special Topics or Unique Needs Course: Y  or N )

**Semester Credit Hours # : Lecture hours# : Lab/other hours #**      4:3:4

**Equated Pay hours for course** - 5

**Course Catalog Description** - An introduction to shielded metal arc welding process. Emphasis placed on power sources, electrode selection, oxy-fuel cutting, and various joint designs. Instruction provided in SMAW fillet in various positions.

Select electrodes and amperage settings for various thicknesses of materials and welding positions; define principles of arc welding; and explain electrode classifications. Perform SMAW operations in various positions in using selected electrodes and different joint designs.

Lab Recommended.

**Prerequisites/Co requisites** - None

**Approvals** – the contents of this document have been reviewed and are found to be accurate.

List Lab/ Other Hours
Lab Hours 4
Clinical Hours
Practicum Hours
Other (list)

Prepared by: Roy R Jones	Signature 	Date 7/14/10
Department Head Roy R. Jones	Signature 	Date 7/14/10
Division Chair David Clayton	Signature 	Date 7/13/10
Vice President of Instruction or Dean of Vocational Instruction Leigh Ann Collins	Signature 	Date 7/14/11



**I. Topical Outline** – Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, clinical or other non-lecture instruction):

A study of practical welding, learning electrical current, straight polarity, and reverse polarity, electrodes selection, metal preparation, striking an arc, and maintaining a weld bead. In this course the student will learn F1 position, F2, F3, and F4 position. Using E 6010 electrodes and E7018 electrodes.

**II. Course Learning Outcomes**

Course Learning Outcome	Method of Assessment
<p>Upon successful completion of WLDG 1428 the student should be able to:</p> <p>1. Explain shop safety rules, safety rules for tools and equipment, and personal visual test on each safety rules.</p>	<p>Upon completion of WLDG 1428 the student should be able to:</p> <p>Each student will take a written test and practical on each weld position. The instructor will do a coupon every day.</p>

**III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.**

“Welding Technology Fundamentals” by Bowditch

**IV. Suggested Course Maximum** - The maximum hours for this class is 160 hours and the maximum number of students for this class is 15.

**V. List any specific spatial or physical requirements beyond a typical classroom required to teach the course.**

None

**VI. Course Requirements/Grading System – Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course**

Department Assignments	30%
Laboratory Assignments	50%
Final Exam	20%
	100%

100-90 = A

89-80 = B

79-70 = C

69-60 = D

Below 60 = F

I = Incomplete (to be used in case of emergencies or illness)

W = Student Withdrawal (either by student or instructor)

**VII. Curriculum Checklist**

- **Academic General Education Course** (from ACGM – but not in WCJC Core)  
No additional documentation needed
  
- **Academic WCJC Core Course**  
Attach the Core Curriculum Checklist, including the following:
  - Basic Intellectual Competencies
  - Perspectives
  - Exemplary Educational Objectives
  
- **WECM Courses**  
If needed, revise the Program SCANS Matrix & Competencies Checklist.