### 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
Orbital Tube Welding

### Course Prefix and Number
WLDG 2450

### Department
Welding Technology

### Division
VOCS

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

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

### Equated Pay hours for course
- 5

### Course Catalog Description
Orbital tube welding in various industries. Special emphasis on the disciplines of orbital tube welding, including cutting, facing, and development of weld procedures.

### Prerequisites/Co requisites
WLDG 1434, WLDG 1435, WLDG 1457, or Division Chair Approval.

<table>
<thead>
<tr>
<th>List Lab/Other Hours</th>
<th>Lab Hours</th>
<th>4</th>
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<tbody>
<tr>
<td>Clinical Hours</td>
<td></td>
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<tr>
<td>Practicum Hours</td>
<td></td>
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<tr>
<td>Other (list)</td>
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**Prepared by**
Roy Jones

**Date**
10-19-11

**Reviewed by department head**
Roy Jones

**Date**
10-19-11

**Accuracy verified by Division Chair**
Terry David Lynch

**Date**
3/27/2012

**Approved by Dean of Vocational Instruction or Vice President of Instruction**
Lac

**Date**
11-9-12
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):

Overview of welding in the semi-conductor and related industries.

II. Course Learning Outcomes

<table>
<thead>
<tr>
<th>Course Learning Outcome</th>
<th>Method of Assessment</th>
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<tbody>
<tr>
<td>- Describe the fitting, tubing, and tungsten used in the orbital tube welding process</td>
<td>Bend tests, visual examination, and written tests.</td>
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<tr>
<td>- Demonstrate skill in orbital tube welding, cutting, and facing</td>
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III. Required Text(s), Optional Text(s) and/or Materials to be Supplied by Student.

- T.I.G. Welding by G. Weaks
- Gas Tungsten Arc Welding handbook by William H.M

IV. Suggested Course Maximum - 30

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

- Metal Arc Welding Machines, PowerPoint capability and Internet connectivity

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

Student learning outcomes will be measured through the critique of weekly laboratory assignments and through periodic examinations. The final course grade will be based on the following:

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<tbody>
<tr>
<td>Department Assignments</td>
<td>30%</td>
</tr>
<tr>
<td>Laboratory Assignments</td>
<td>50%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>20%</td>
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<tr>
<td>Total</td>
<td>100%</td>
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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 by 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.