

## **SYLLABUS**

**DIVISION: Business and Engineering Technology**

**REVISED: MAY / 2013**

**CURRICULA IN WHICH COURSE IS TAUGHT: DCC Program of Study**

**COURSE NUMBER AND TITLE: WEL 136 Inert Gas II**

**CREDIT HOURS: 2 HOURS/WK LEC: 1 HOURS/WK LAB: 3 LEC/LAB COMB: 4**

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**I. CATALOG DESCRIPTION: WEL 136 STUDIES TUNGSTEN AND INERT GAS PROCEDURES AND PRACTICES INCLUDING PRINCIPLES OF OPERATION, SHIELDING GASES, FILLER RODS, PROCESSES VARIATIONS AND APPLICATIONS, MANUAL AND AUTOMATIC WELDING EQUIPMENT AND SAFETY**

**II. RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES:**

- Covers welding in all positions and on various joint configurations using the Gas Tungsten Arc Welding (Tungsten Inert Gas) welding process on carbon steel. Student should be familiar with basic, structural joints and safety in the welding lab.

**III. REQUIRED BACKGROUND/PREREQUISITIES:**

- Wel 120 Fundamentals

**IV. COURSE CONTENT:**

- Welding orientation ( first class only)
- SAFETY IN THE WELDING SHOP
- ASSEMBLE A GTAW OUTFIT
- GTAW GASES
- CYLINDERS REGULATORS AND FLOWMETERS
- GTAW PROCEDURES
- MAKE BUTT, LAP, T AND FILLET JOINTS IN ALL
- REQUIRED POSITIONS

**V. THE FOLLOWING GENERAL EDUCATION OBJECTIVES WILL BE ADDRESSED IN THIS COURSE (Place X by all that apply)**

Communication

Information Literacy

Critical Thinking

Personal Development

Cultural and Social Understanding

Quantitative Reasoning

**VI. LEARNER OUTCOMES**

**VII. EVALUATION**

Learner outcome (starts with verb)	Evaluation method
<ul style="list-style-type: none"> <li>• DEMONSTRATES SAFETY PROCEDURES AND PERCAUTIONS</li> <li>• ASSEMBLY AND USE GTAW EQUIPMENT</li> <li>• IDENTIFY AND SELECT PROPER WELDING MACHINE CONTROLS AND SETTINGS</li> <li>• IDENTIFY AND USE PROPER FILLER RODS</li> <li>• MAKE A LAP, T, AND A FILLET WELD IN ALL REQUIRED POSITIONS</li> <li>• IDENTIFY WELD DEFECTS WITH VISUAL INSPECTION</li> <li>• IDENTIFY PROPER CYLINDERS AND FLOW METERS SETTINGS</li> <li>• BE ABLE TO COMPLETE A SAFTEY INSPECTION IN THE WELDING SHOP</li> </ul>	<p>Lab exercises</p> <p>Written test</p> <p>Hands on lab exam</p>

