

DIVISION: Business & Engineering Technology

Curricula in Which Course is Taught: Welding Technology

COURSE NUMBER AND TITLE: WEL 135 INERT GAS 1

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

COURSE PREREQUISITES: Admission Requirements*

I. CATALOG DESCRIPTION:

Introduces practical operations in use of inert gas shielded arc welding. Studies equipment operation, setup, safety and practice of GMAW (MIG) and GTAW (TIG).

RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES IN WHICH IT IS TAUGHT: This course teaches the student the GMAW procedures and techniques that might be required as part of employment often used in the welding trade.

II. COURSE CONTENT:

- Welding orientation (first class only)
- Safety and efficient work habits
- Assemble a GMAW outfit
- GMAW shielding gases
- Cylinders and regulators and flow meters
- GMAW procedures
- Identify various weld defects with visual inspection

III . THE FOLLOWING GENERAL EDUCATION COMPETENCIES AND

OBJECTIVES WILL BE ADDRESSED IN THIS COURSE:

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| <u>X</u> Communication | <u>X</u> Information Literacy |
| <u>X</u> Critical Thinking | <u>X</u> Personal Development |
| <u>X</u> Cultural and Social Understanding | <u>X</u> Quantitative Reasoning |

IV. LEARNER OUTCOMES

.V. EVALUATION

Learner outcome	Evaluation method
<p>DEMONSTRATES SAFETY PROCEDURES AND PERCAUTIONS ASSEMBLY AND USE GTAW EQUIPMENT IDENTIFY AND SELECT PROPER WELDING MACHINE CONTROLS AND SETTINGS</p> <p>IDENTIFY AND SET UP MACHINE USING PROPER WELDING WIRE SIZE</p> <p>MAKE A LAP, T, AND A FILLET WELD IN ALL REQUIRED POSITIONS</p> <p>IDENTIFY WELD DEFECTS WITH VISUAL INSPECTION</p> <p>IDENTIFY PROPER CYLINDERS AND FLOW METERS SETTINGS</p> <p>BE ABLE TO COMPLETE A SAFTEY INSPECTION IN THE WELDING SHOP</p>	<p>Lab exercises</p> <p>Written test</p> <p>Hands on lab exam</p>