SYLLABUS

DIVISION: Business and Engineering Technology **REVISED:** MAY/ 2013

CURRICULA IN WHICH COURSE IS TAUGHT: DCC Program of Study

COURSE NUMBER AND TITLE: WEL 120, Fundamentals of Welding

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

I. CATALOG DESCRIPTION: Introduces history of oxyacetylene welding, principles of welding and cutting, nomenclature of the equipment, development of the puddle, running flat beads, and butt welding in different positions. Explains silver brazing, silver and soft soldering, and safety procedures in the use of tools and equipment

II. RELATIONSHIP OF THE COURSE TO CURRICULA OBJECTIVES:

This course teaches the student the fundamentals of welding and cutting processes that will able them to use and understand different welding and cutting procedures.

III. REQUIRED BACKGROUND/PREREQUISTIES:

IV. COURSE CONTENT:

Welding Orientation (first class only)
Shop Safety
Oxyfuel Processes
Plasma Cutting Process
Shielded Metal Arc Welding (SMAW) Process
Gas Metal Arc Welding (GMAW) Process
Introduction to Gas Tungsten Arc Welding (GTAW)

V. THE FOLLOWING GENERAL EDUCATION OBJECTIVES WILL BE ADDRESSED IN THIS COURSE

X Communication	**X** Information Literacy
X Critical Thinking	**X** Personal Development
X Cultural and Social Understanding	**X** Quantitative Reasoning

VI. LEARNER OUTCOMES

VII. EVALUATION

Learner outcome :	**Evaluation method**
Demonstrate Safety Practices Assembly And Use Of Oxyfuel Cutting Equipment Setup And Use Plasma Arc Cutting Torch Identify And Select Proper Welding Methods Indentify And Select Proper Welding Machine Controls Learning To Strike An Arc Run Beads In The Flat Position	• Lab exercises • Written test • Hands on lab exam