COURSE INFORMATION FORM

DISCIPLINE          WELD
COURSE TITLE        Layout and Fabrication

CR. HR.             2    LECT HR.   .5    LAB HR.   3    CLIN/INTERN HR.    _______    CLOCK HR.    _______

CATALOG DESCRIPTION
Layout and fit-up operations will be presented which include selection and use of shop tools and equipment, processing materials, and fabrication safety. Processed parts will be assembled and welded using shop prints with welding symbols.

PREREQUISITES
WELD 230; one WELD 100 level welding lecture & lab

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:

1. Select and safely use lifting equipment.
2. Complete layout procedures using mathematical formulas and geometrical principles.
3. Select and properly use tools for layout procedures.
4. Select and properly use equipment for fabrication of parts.
5. Assemble and weld projects using fabricated parts and shop prints.

GENERAL EDUCATION OUTCOMES (ESO)
Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

Life-long learning: Attributes of an awareness of the convergence of knowledge
2. Apply learned skills to real world interactions (1-5)

Quantitative Literacy and Mathematical Analysis
E. Interpret and apply numeric information embedded in text or real-life situations (1-5)
F. Interpret and apply numeric information presented in tables, charts, and graphs (1-5)
PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES
Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

The student will demonstrate:

1. critical thinking and problem-solving skills and adapt these skills to welding applications.
2. skills that meet or exceed the American Welding Society’s guidelines for entry-level employees in welding technology.
3. supervisory and managerial skills as applied to the welding industry.

CLASS-LEVEL ASSESSMENT MEASURES
Student accomplishment of expected student outcomes will be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Performance tests (1-5)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Operation of lifting equipment
   A. Select proper equipment for a given task
   B. Safely lift and move equipment and materials

II. Apply advanced measurement practices
   A. Mathematical formulas to layout procedures
   B. Geometrical principles to layout procedures
   C. Select appropriate layout reference material

III. Layout tools for fabrication
   A. Select and properly use hand tools in fabrication
   B. Apply safety procedures in the use of tools

IV. Fabrication equipment
   A. Select and properly use fabrication equipment
   B. Apply safety procedures in the use of equipment

V. Fabrication of projects
   A. Select material
   B. Produce parts from shop prints
   C. Assemble and weld projects