COURSE INFORMATION FORM

DISCIPLINE: INTE
COURSE TITLE: Electrical Print Reading
CR.HR: 3  LECT HR: 3  LAB HR:  0  CLIN/INTERN HR:  0  CLOCK HR:  0

CATALOG DESCRIPTION

This course is designed to teach the student to read and interpret electrical blueprints commonly found in residential, commercial and industrial maintenance settings. Topics include blueprint layout, symbols, projections, dimensions, tolerances, clearances, assembly and bill of material.

PREREQUISITES

INTE 113

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)

Upon completion of this course, the student will be able to:

1. Identify National Electrical Manufacturers (NEMA) electrical symbols.
2. Identify and interpret building drawing site plans and elevations.
3. Read and interpret electrical schedules including branch and panel loads, identification of equipment and materials lists.
4. Apply electrical specifications to the project under study.
5. Identify manufacturing electrical symbols.
6. Read and interpret electrical machine drawings.
7. Read and interpret electrical ladder diagrams for the control of production machines.
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.

<table>
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<tr>
<th>Outcomes</th>
<th>ESO</th>
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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.

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

1. Classroom discussion/participation (1 – 7)
2. Assignments (1 – 7)
3. Written examinations (1, 2, 3, 6, 7)
4. Practical examinations (4, 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. Electrical drawings
   A. Electrical working drawings
   B. Preparing drawings
   C. Architect scale
   D. Architect construction
   E. Electrical symbols

II. Building drawings
    A. Site plans and elevations
    B. Sectional views
    C. Details and single line diagrams
    D. Power riser diagrams
    E. Feeder and branch circuits

III. Electrical Schedules
     A. Connected load schedules
     B. Panel board
     C. Lighting fixtures, equipment schedules and material lists
     D. Identification of receptacle types

IV. Electrical specifications
    A. Scope of work
    B. Working drawings
    C. Project requirements

V. Manufacturer drawings
    A. Machine drawings
    B. Drawing interpretations

VI. Ladder diagrams
    A. Control and power circuits
    B. NEMA symbols
    C. Ladder drawings
    D. Machine control circuits