Course Information

Division: Industrial Technical Education
Course Number: ELT 115
Title: Conduits and Raceways
Credits: 2
Developed by: Charles A. Smith
Lecture/Lab Ratio: 1 Lecture/2 Lab
Transfer Status:

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<td>CTE Department Elective</td>
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Activity Course: No
CIP Code: 47.0105
Assessment Mode: Pre/Post Test (34 Questions/100points)
Semester Taught: Fall
GE Category: None
Separate Lab: No
Awareness Course: No
Intensive Writing Course: No

Prerequisites
None

Educational Value
A. To General Education: Elective Credit
B. To other courses or curricula: This course is a curriculum requirement for the Electrical and Instrumentation Technician certificate or degree.

Description
This course is an introductory course of conduit installation and bending as well as raceways, with a heavy emphasis on industrial applications and settings. The course will introduce the student to various conduit types and sizes as well as the tools and equipment used to cut, bend, thread, and install electrical conduit. Wire pulling and termination will also be included.

Supplies
None
**Competencies and Performance Standards**

1. **Comprehend the function and purpose of Conduits and Raceways**
   **Learning objectives**
   What you will learn as you master the competency:
   a. List the various type and materials of conduits
   b. Explain the appropriate applications of the various types of conduit
   **Performance Standards**
   Competence will be demonstrated:
   o in class discussion
   o group practice
   o using model electrical circuits
   o written tests
   Criteria-Performance will be satisfactory when:
   o learner completes written test to 70% correct

2. **Layout, Bend, and Assemble Conduit Systems**
   **Learning objectives**
   What you will learn as you master the competency:
   a. take precise measurements
   b. design safe, attractive conduit runs
   c. make clean precise cuts in the conduit
   d. make precise bends
   e. use connectors, boxes, condulets as appropriate and according to relevant codes
   **Performance Standards**
   Competence will be demonstrated:
   o in class discussion
   o group practice
   o using sample blueprints and schematics
   o written tests
   Criteria-Performance will be satisfactory when:
   o learner correctly fabricates a run of conduit to industry standard of workmanship
   o learner submits photograph to document the work

**Types of Instruction**
Lecture/modeling
Electrical Lab assignments
Group practice
Individual projects / presentations
Grading Information

Grading Rationale

- Final Exam – 30%
- Lab Assignments – 60%
- Attendance - 10%

Grading Scale

A  90%–100%
B  80%–89%
C  70%–79%
D  60%–69%
F  Under 60%