Course Title: DC Circuits
Prefix and Course Number: ELMT 122

Course Learning Outcomes:
By the end of this course, a student should be able to:

- describe and calculate (using Ohm's Law) current, total voltage, and total resistance in series circuits
- describe and calculate (using Ohm's Law) current, total voltage, and total resistance in parallel and combination circuits
- define energy and calculate amount consumed
- apply the techniques of problem-solving electric circuits and wire sizing

Course Outline:

I.   Series Circuits
    A.   Identifying a Series Circuit
    B.   Series Loads
    C.   Current in a Series Circuit
    D.   Power Sources
    E.   Power Consumption
    F.   Voltage Drop
    G.   Polarity
    H.   Wiring Series Circuits
    I.   Solving Problems and Troubleshooting
II. Parallel Circuits
    A.   Identifying a Parallel Circuit
    B.   Parallel Loads
    C.   Effect of Parallel Loads on Current
        1.   calculating branch current
        2.   calculating total current
    D.   Calculating Total Resistance
        1.   equal resistances
        2.   unequal resistances
    E.   Power Sources
    F.   Power Consumption
    G.   Wiring Parallel Circuits
    H.   Solving Problems and Troubleshooting
III. Series-Parallel Circuits
    A.   Identifying a Series-Parallel Circuit
    B.   Analyzing Series-Parallel Circuits
    C.   Redrawing Series-Parallel Circuits
    D.   Wiring Series-Parallel Circuits

      E.   Solving Problems and Troubleshooting

IV.Wire Techniques

      A.   Splicing

      B.   Soldering

      C.   Connectors