

RANKEN

TECHNICAL COLLEGE

COURSE INFORMATION

Course Number: HVA 1001

Course Name: Electrical for HVACR Theory

CREDIT-BY-ASSESSMENT (CBA) COMPETENCY LIST

- Define these following terms: amperes, ohms, electrical potential, watts, joules, volts, electromotive force and counter electromotive force.
- With the above terms, apply their properties within a circuit.
- Describe the inter-relation between the main components of Ohm's Law when given at least two known values.
- Discuss the properties of electrical loads and or resistances in either a series or parallel circuit.
- Describe the integral parts of an atom, determining the type of charge that will be emitted.
- List the types of the commonly used insulators and conductors giving material composition.
- Describe the more commonly used electrical instruments.
- List the application of electrical properties these instruments measure when obtaining a reading.
- List the more commonly used voltages in the greater USA for car batteries and residential housing.
- List characteristics of Direct Current and Alternating Current (AC & DC).
- Describe the operating properties of single phase fractional horsepower motors, including but not limited to the start winding, the run winding, and the grounding straps or screws.