

Engineering Technology: Electrical/Electronics Engineering

Apply the design process involving **EE1**

- a** problem identification, conceptualization, and research **EE1A**

- b** refinement of preliminary ideas, design analysis, development and implementation **EE1B**

- c** detailed documentation of final design, optimization and final presentation. **EE1C**

Develop knowledge and understanding of **EE2**

- a** programmable logic controllers **EE2A**

- b** electrical motors. **EE2B**

Demonstrate safe and appropriate use of tools, machines, and materials in electrical and electronic technology **EE3**

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Demonstrate understanding and apply knowledge of direct current circuits and alternating current circuits as related to electrical technology. **EE4**

- 4** Demonstrate understanding and apply knowledge of direct current circuits and alternating current circuits as related to electrical technology. **EE4**

Describe, construct, conduct, and analyze experiments with basic DC and AC circuits and with circuits using magnetism. **EE5**

- 5** Describe, construct, conduct, and analyze experiments with basic DC and AC circuits and with circuits using magnetism. **EE5**

Describe the structure of matter related to electricity and electronics. EE6

6 Describe the structure of matter related to electricity and electronics. EE6

Use Ohm's Law and Watt's Law to analyze and experiment with resistive circuits EE7

7 Use Ohm's Law and Watt's Law to analyze and experiment with resistive circuits EE7

Describe, construct analyze and experiment with capacitive circuits. EE8

8 Describe, construct analyze and experiment with capacitive circuits. EE8

Demonstrate the use of electrical and electronic equipment. EE9

9 Demonstrate the use of electrical and electronic equipment. EE9

Demonstrate proper electronic assembly methods EE10

10 Demonstrate proper electronic assembly methods EE10

Demonstrate an understanding of basic electrical circuits and electronic systems. EE11

11 Demonstrate an understanding of basic electrical circuits and electronic systems. EE11

Describe and experiment with integrated circuits. EE12

12 Describe and experiment with integrated circuits. EE12

Describe, construct, and experiment with circuits using semiconductors. EE13

13 Describe, construct, and experiment with circuits using semiconductors. EE13