

# Engineering Technology: Electrical/Electronics Engineering

Apply the design process involving **EE1**

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

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

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

Develop knowledge and understanding of **EE2**

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

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

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

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

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

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**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

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**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

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

**Demonstrate the use of electrical and electronic equipment.** EE9

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**9 Demonstrate the use of electrical and electronic equipment.** EE9

**Demonstrate proper electronic assembly methods** EE10

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**10 Demonstrate proper electronic assembly methods** EE10

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

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

**Describe and experiment with integrated circuits.** EE12

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**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