

**Course Objectives/Course Outline**  
**Spokane Community College**

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**Course Title:** Circuit Theory I

**Prefix and Course Number:** ELECT 111

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**Course Learning Outcomes:**

**By the end of this course, a student should be able to:**

- Identify basic electronic components and symbols
- Use proper electronics terminology
- Explain the fundamental principles of electron theory
- State the functions of conductors, insulators, and resistors
- Calculate voltages, resistances, and currents in DC circuits
- Demonstrate basic troubleshooting techniques for DC circuits

**Course Outline:**

- I. Course Overview
- II. Personal Safety
- III. Powers of 10
- IV. Fundamentals of Electricity
- V. Resistors
- VI. Ohm's Law
- VII. Series Circuits
- VIII. Parallel Circuits
- IX. Series-Parallel Circuits
- X. Voltage and Current Dividers Circuits
- XI. Meter Circuits
- XII. Kirchhoff's Laws
- XIII. Network Theorems
- XIV. Conductors and Insulators
- XV. DC power sources