

# Course Objectives/Course Outline

## Spokane Community College

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**Course Title:** Circuit Theory II Lab

**Prefix and Course Number:** ELECT 122

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### Course Learning Outcomes:

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

- Calculate and measure RC time constants
- Determine and measure RC frequency response
- Calculate and measure the characteristics of inductors and transformers
- Design and construct RLC filters single pole
- Determine AC characteristics by Ohm's and Kirchhoff's Laws
- Construct and verify diode characteristics
- Use lab test equipment

### Course Outline:

- I. Course Overview
- II. Equipment Safety
- III. Equipment Protection
- IV. Equipment Familiarization
  - A. Oscilloscope
  - B. Signal Generator
- V. Ohm's and Kirchhoff's Laws for AC
- VI. RC Time Constants
- VII. Capacitive Reactance
- VIII. RC Frequency Response
- IX. Inductors
- X. Transformers
- XI. Series AC Circuit
- XII. Resonance
- XIII. Parallel AC Circuit