

**Los Angeles Valley College
Course Level Student Learning Outcomes (SLO)**

Course Name and Number: Technical Computer Applications; EL-64

Course Objectives: (List the course objectives as they appear in the course outline of record.)

Application of computers to technology provides students with the skills needed to use applications programs such as Windows, Internet browsers, Lab View, Spice, and others in technology driven environments.

Demonstrate the ability to use various computer applications in electronic circuits and other technical environments.

Simulate the operation of analog and digital electronic circuits.

Employ virtual instrumentation and data acquisition techniques in electronic circuits.

Establish 1–2 course level student learning outcomes and indicate how each SLO will be assessed.

Course Level Student Learning Outcome	Assessment Measure
Examine the use of computer software in the simulation and analysis of electronic circuits.	Using standard test procedures and the completion of computer simulation and analysis exercises using the CircuitMaker application software, the student will be able to design, simulate, and analyze ten of the following virtual electronic circuit types: <ul style="list-style-type: none"> • Combination logic circuits. • Encoders and decoders. • Multiplexers and demultiplexers. • Multivibrator circuits. • Flip-flop circuits. • Shift registers circuits. • Counter circuits. • A/D circuits. • D/A circuits. • Memory circuits. • Microprocessor circuits. • Amplifier circuits. • Oscillator circuits. • Transmitting circuits. • Audio circuits.

	<ul style="list-style-type: none">• RF circuits.• Filter circuits.• Combined digital and analog circuits.• Power supply circuits.