ECE 260 Lab, Electrical Cricuits I Lab Instructors: Chester Wright, David Bone

Credit Hours: 1.5

Campus Based Course Fall 2025

Office Hours and Contact Information:

Classroom: Kunsela Hall C206 (Bone), C211 (Wright)

Office Hours: Coordinate with instructors

Email: wrightc@sunypoly.edu, boned@sunypoly.edu

Introduction:

This lab will apply various electrical circuits topics introduced in the lecture. Topics include: Units and Definitions. Ohm's law and Kirchhoff's Laws. Simple resistive circuits. Circuit analysis techniques: Nodal and mesh methods, superposition, Norton and Thevenin theorems, maximum power transfer. Capacitance, inductance and the natural and step response of RL, RC and RLC circuits. Sinusoidal steady-state analysis. Serial and parallel impedance. Phasor analysis.

Course Objectives:

- Understand electrical hazards and practice laboratory safety
- Design, construct, and analyze electrical circuits
- Apply circuit analysis techniques: Ohm's law, KVL, KCL, Thevenin and Norton equivalent
- Understand Op-amp and its applications

Course Schedule:

Lab activities are subject-to-change dependent on course pace.

Lab	Lab Activity
0	Review of Math and Calculator Fundamentals
1	Resistors and the Color Code
2	Ohm's Law
3	KVL
4	KCL
5	Thevenin and Norton Equivalent
6	Operational Amplifiers
7	Applications of Op-Amps
8	Series and Parallel Capacitors
9	Wien Bridge Oscillator using an LM741 Op-Amp

Method of Evaluation:

The final lab grade will be evaluated by the average grade of all lab reports covered. The lab grade will account for 30% of the total course grade

Lab Activities	Grade Percentage
Lab reports	100%

Important Notice – Please note that all core courses in the (name of program, department, or major> require a "C" or better to meet requirements.

Policy on Submission of Assignments:

- Lab reports must be turned in via brightspace before the posted due date
- Late submissions will be subject to a 50% point reduction

<u>Code of Conduct</u>: Students are referred to the Student Handbook for SUNY Poly's current Academic Integrity Policy regarding plagiarism and other inappropriate academic activities.

Policy on Missed Classes &/or Make-up Work, Extra Credit:

Students should email both instructors if they cannot attend class for any valid reason: medical/family-related emergencies. All missed worksheets/quizzes must be completed within a reasonable time frame determined by coordinating with the instructors.

Cancellation of Classes Due to Inclement Weather or Other Emergency:

SUNY Poly has a 24-hour hotline to inform students, faculty and staff when severe winter weather prompts the cancellation of all classes. On-campus, you can call the "Snowline" by dialing ext. 7669 ("SNOW"). Off-campus, Snowline can be reached by calling 315-792-7385. Snowline cards are available at various locations on campus.

In the event of severe weather, Snowline will announce only the cancellation of ALL classes. The cancellation of all classes will also be posted online, at sunypoly.edu, and will be broadcast on radio and television stations in the Utica-Rome, Syracuse, and Albany areas. Individual class cancellations are always available at sunypoly.edu/apps/canceled_classes.

Accommodations for Students with Disabilities:

Your access in this course is important to me. In compliance with the Americans with Disabilities Act of 1990 and Section 504 of the Rehabilitation Act of 1973, SUNY Polytechnic Institute is committed to ensuring comprehensive educational access and accommodations for all registered students seeking access to meet course requirements and fully participate in programs and activities. Students with documented disabilities, temporary, or medical conditions are encouraged to request services by contacting Student Accessibility Services (SAS) or filling out the Request for Accommodations form. Please note, requesting accommodations is only the first step. You must provide documentation to SAS and meet with staff *before* receiving accommodations. Please do this as early as possible 1) because accommodations are never retroactive and 2) so that we have adequate time to arrange your approved academic accommodation/s. Once SAS creates your accommodation plan, it is your responsibility to provide me a copy of the accommodation plan. If you experience any access barriers in this course, such as with printed content, graphics, online materials, etc., reach out to me or Accessibility Services right away. For information related to these services or to schedule an appointment, please contact the SAS using the information provided below.

Office of Student Accessibility Services

SAS@sunypoly.edu (315) 792-7170 Peter J. Cayan Library, L112

Jill Ennis, M.S. (she/her)

Coordinator of Student Accessibility Services

SUNY Polytechnic Institute 100 Seymour Road Utica, NY 13502 315-792-7304 sunypoly.edu