

Biomedical Electronic Measurements

BME253L (Fall 2025)

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Module	Materials	Assessment	Lab Exercise
Voltage & Current Series & Parallel Resistance Kirchhof's Laws Ohm's Law & Power	Introduction to Circuits Ohm's Law, KCL & KVL	Software Installation & Tutorials Problem Set 01	Introduction Ohm's Law & Power
Voltage & Current Dividers Node Voltage & Mesh Current Analysis Thevenin & Norton Equivalent Sources Source Superposition Midterm I (Sep 22, 2025) Capacitors & Inductors DC RC/RL Circuit Analysis Complex Impedance, AC Signals, Phasors AC RLC Circuit Analysis Passive Filters Transfer Functions & Bode Plots (Frequency Domain)			Capacitors, Inductors & Oscilloscopes Impedance Filters

Module	Materials	Assessment	Lab Exercise
Transient Response (Time Domain)			Transient Response
Midterm II (Oct 08, 2025)			
Operational Amplifiers & Active Filters			Opamps
Transformers & Diodes			Transformers & Diodes
Midterm III (Dec 03, 2025)			
Wheatstone Bridge			Wheatstone Bridge: Temperature Measurement
Final Lab Practical (Dec 10, 2025)			