Lectures	Topics	Sections
	² Electric circuits, current, voltage, power, energy.	1.1-1.3
	Active and passive circuits, resistors, Ohm's Law.	1.6
	² Independent sources, connecting voltmeter and ammeter.	
	Dependent sources, transducer, switches.	1.6
	3 Circuit terminology, KCL, KVL.	1.4-1.5
	Series resistor, voltage divider, examples.	2.3
	Parallel resistor, current divider, examples.	2.3
	1 Circuit analysis reducing to equivalent resistance.	2.1-2.2
3	+ Source transformation, circuit analysis using source transformation technique	2.2
	Node Voltage Analysis w/ current source, matrices to solve system of equations.	2.4
	Examples with current and voltage source, example w/ dependent source,	
	example with supernode.	
	2 Mesh Current Analysis.	2.5
	Examples with current and voltage source, supermesh.	
	5 Superposition and examples.	2.7
	Thevenin's Theorem (Rth, Vth) and examples	2.6
	Norton's Equivalent Circuit	2.6
	Maximum Power Transfer	2.6
3	+ Ideal Operational Amplifier	14.1-14.3
	Examples and applications for inverting and non-inverting configurations, voltage	
	follower and the summing amplifier	
	3 Inductor and capacitor.	3
	4 AC, sinusoidal sources.	5
	Complex numbers, phasor concept.	5.2
	Phasor Relationship for R, L, and C	5.3
	Impedance and Admittance	5.4
	2 Examples of AC Analysis using phasors	
5	+ Periodic Waveform, average and effective values.	5.5
	Complex Power, apparent power, average power, reactive power.	
	power factor, correcting p.f., maximum power transfer. Examples	
	2 Coupled inductors, ideal transformer.	15.5
	5 Three phase voltages, sequence,	5.7
	Y-Y circuit, analysis of Y-Y balanced circuit.	
	Δ -connected source and load, Δ -Y transformation	
	Y- Δ circuit, analysis of Y- Δ balanced circuit.	
	3 Exams	

10. General Topics: (Hambley, "Electrical Engineering, Principles and Applications", 5th Ed.)