

ROSE-HULMAN INSTITUTE OF TECHNOLOGY  
Sophomore Engineering Curriculum

ES 203 Electrical Systems

Spring 2009 - 10

**Course Calendar**

Class	Day	Date	Topic	Reading	Due
1-1	M	3/8	Introduction, overview	1.1-3	
1-2	T	3/9	Voltage, current, power, energy, passive sign convention	1.4-6	Quiz 1, Prelab 1
1 - L	W	3/12	<i>Lab 1. DC Measurements</i>		
1-3	R	3/11	Sources, dependent sources, resistors, Ohm's Law	2.1-2	HW 1
2-1	M	3/15	Inductors and capacitors	6.1-2	
2-2	T	3/16	Sinusoids, RMS	9.1-3	Quiz 2, Prelab 2
2 - L	W	3/19	<i>Lab 2. More DC Measurements</i>		
2-3	R	3/18	Phasor transform, Phasor addition, Impedance	9.3 - 4	HW 2
3-1	M	3/22	Kirchhoff's voltage and current laws	2.4-5	
3-2	T	3/23	Kirchhoff's voltage and current laws	9.5	Quiz 3, Prelab 3
3 - L	W	3/26	<i>Lab 3. AC Measurements and KVL</i>		HW 3
3-3	R	3/25	<b>Midterm 1 (up through Lecture 3-2)</b>		
4-1	M	3/29	Series and parallel elements, voltage and current divider	3.1-4, 9.6	
4-2	T	3/30	Series and parallel inductors and capacitors	6.3	Quiz 4, Prelab 4
4 - L	W	4/2	<i>Lab 4. AC Circuits &amp; Measurements</i>		
4-3	R	4/1	The Node-Voltage Method	4.1-2	HW 4
<b>SPRING BREAK (4/3 - 4/11/09)</b>					
5-1	M	4/12	The Node-Voltage Method	4.3-4	
5-2	T	4/13	The Mesh-Current Method	4.5-6	Quiz 5, Prelab 5
5 - L	W	4/14	<i>Lab 5. Expert Witness</i>		
5-3	R	4/15	The Mesh-Current Method	4.7 - 8	HW 5
6-1	M	4/19	AC node-voltage & mesh-current methods	9.8-9	
6-2	T	4/20	Source transformations	4.9,9.7	Quiz 6, Prelab 6
6 - L	W	4/21	<i>Lab 6. Kirchhoff's Voltage &amp; Current Laws</i>		HW 6
6-3	R	4/22	<b>Midterm 2 (up through Lecture 6-1)</b>		
7-1	M	4/26	Thevenin and Norton for DC circuits	4.10-11	
7-2	T	4/27	Thevenin and Norton for AC circuits	9.7	Quiz 7, Prelab 7
7 - L	W	4/28	<i>Lab 7. Inductor Impedance</i>		
7-3	R	4/29	Test sources & Max Power Transfer	4.11-4.12	HW 7
8-1	M	5/3	Superposition	4.13	
8-2	T	5/7	Instantaneous Power, Average and Reactive Power	10.1-2	Quiz 8, Prelab 8
8 - L	W	5/5	<i>Lab 8. Circuit Theorems</i>		
8-3	R	5/6	<b>Midterm 3 (up through Lecture 8-1)</b>		HW 8
9-1	M	5/10	P, Q, power factor, RMS	10.3	
9-2	T	5/11	Complex power, power triangle	10.4	Quiz 9, Prelab 9
9 - L	W	5/12	<i>Lab 9. Lab Practical Test</i>		
9-3	R	5/13	Complex power calculations, maximum power transfer	10.5-6	HW 9
10-1	M	5/17	Op amps: Ideal model, inverting	5.1-3	
10-2	T	5/18	Op amps: summing & non-inverting	5.4-5	Quiz 10, Prelab 10
10 - L	W	5/19	<i>Lab 10. Op-Amp Measurements</i>		
10-3	R	5/20	Op amps: difference	5.6	HW 10