

ECE U400- Linear Circuits, Spring 2005 Schedule

Text: *Introductory Circuits for Electrical and Computer Engineering*, Nilsson & Riedel, 2002

Instructor: Dr. Suparna Datta

	DATE	TOPICS	PAGES	HOMEWORK PROBLEMS DUE
1	01/05	Charge, current, voltage, basic circuit element	1-7	----
2	01/06	Power, voltage and current sources	7-14	----
3	01/10	Resistance, Ohm's Law, power reprise	14-18	1,2
4	01/12	Kirchhoff's Laws, single loop, single node pair circuits	18-30	----
5	01/13	Resistor combinations, voltage & current division	45-53	3,4,5,6
	01/17	No Class-Martin Luther King Holiday		
6	01/19	Source transformations	54-58	7,8
7	01/20	Superposition and linearity	58-62	9,10
	01/21	Last day to drop without a "W" grade		
8	01/24	Nodal analysis	77-88	11,12
9	01/26	Nodal analysis (cont'd)	88-91	13,14
10	01/27	Mesh analysis	91-104	15,16
11	01/31	Thévenin and Norton Equivalents	104-110	17,18
12	02/02	Thévenin Equivalent (cont'd), maximum power transfer	111-116	19,20
13	02/03	Op Amp basics	145-163	21,22
14	02/07	Inductance and capacitance	181-195	----
15	02/09	Review		----
	02/10	Exam #1: 2:50-4:30pm, 220 Shillman Hall		----
16	02/14	L and C combinations	195-198	23,24
17	02/16	Natural response of RL and RC circuits	198-214	25,26
18	02/17	Step response of RL and RC circuits	214-230	27,28
	02/21	No Class-President's Day		
19	02/23	Natural and step response of parallel RLC circuit	263-291	29,30
20	02/24	Natural and step response of series RLC circuit	291-299	31,32,33,34
	02/28	No Class-Spring Break		
	03/02	No Class-Spring Break		
	03/03	No Class-Spring Break		
21	03/07	Sinusoidal source, steady-state response, phasors	311-325	35,36
22	03/09	Impedance, KVL/KCL & other simplifications with phasors	325-340	37,38
23	03/10	Circuit simplifications in frequency domain (cont'd)	336-344	39,40
24	03/14	Instantaneous & average power, rms value, complex power	344-366	41,42
25	03/16	Review		----
	03/17	Exam #2: 2:50-4:30pm, 220 Shillman Hall		----
26	03/21	Complex power (cont'd)	353-366	43,44
27	03/23	Laplace transforms, step & impulse functions, common pairs	395-414	45,46
28	03/24	Inverse Laplace transforms	414-426	47,48
	03/25	Last day to drop with a "W" grade		
29	03/28	Poles and zeros, Initial and Final Value Theorems	426-430	49,50
30	03/30	s-domain circuit elements, analysis, and applications	443-462	51,52
31	03/31	s-domain circuit analysis (cont'd)	443-462	53,54
32	04/04	Transfer function and convolution integral	463-477	55,56
33	04/06	Review		57,58
	04/07	Exam #3: 2:50-4:30pm, 220 Shillman Hall		----
34	04/11	Steady-state response via transfer function; impulse function	477-495	59,60
	04/13	Office Hours: HW 61-64 due by 2pm		61,62,63,64
	04/14	Final Exam: 1pm-3:30pm, Room: TBD		