

**UNIVERSITY OF UTAH**  
**Department of Electrical and Computer Engineering**  
**ECE 1270 - Introduction to Electrical and Computer Engineering**

**Instructor:** Dr. Angela Rasmussen  
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**Class Website:** <http://www.ece.utah.edu/~ece1270>

**Prerequisite:** MATH 1210 or 1270

**Co-requisite:** ECE 1020, MATH 1220 or 1280, and PHYCS 2210

**Required Text:** *Electric Circuits, 7th Edition*  
James W. Nilsson and Susan A. Riedel  
Prentice Hall: Upper Saddle River, NJ, 2005  
ISBN 0-13-146592-9

**Required Packets:** ECE 1270 Study Guide  
(or available on web) Carl H. Durney and Neil E. Cotter  
Available from Campus Copy Center in Union Building

ECE 1270 Conceptual Tools  
Neil E. Cotter et al.  
Available at Copy Center

**Homework:** Due before class (9:30am) on day indicated in syllabus.  
No late HW accepted. (Lowest homework is dropped from your scores)  
Turn in to locker on 3rd floor of MEB near southeast stairway.

**Cheating:** Any form of cheating will result in an "E" grade. Students are encouraged to discuss assignments, but each student must do all their own work on assignments.

**Equal Access:** The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the instructor and to the Center for Disability Services, 162 Olpin Union Building, 518-5020 (V/TDD) to make arrangements for accommodations.

All written information in this course can be made available in alternative format with prior notification.

Any questions of concerns about the above information may be directed to:

Olga Nadeau	Julene Persinger
Director, CDS	ADA Coord/Assoc Director, OEO/ER
162 Olpin Union Building	135 Park Building
581-5020	581-8365

UNIVERSITY OF UTAH  
ELECTRICAL AND COMPUTER ENGINEERING DEPARTMENT

ECE 1270

**Tentative Schedule**

Summer 2007

Due	Date	Topics	Reading
	T 15 May	Course Procedures, Intro, Basic DC Circuits: Units, Voltage $v$ , Current $i$ , Power $p$ , EM simp., Devices, Passive Sign Convention, Sources -voltage, current, independent and dependent, Kirchoff's Laws, Ohm's Law <b>Lab0 starts</b>	Ch. 1 main points – <b>Units, Voltage, Current, Power</b> ; Ch. 2 <b>Objectives pg. 37, 48, 53</b>
	W 16	Circuits: Resistor Networks (parallel/series), voltage and current dividers, power dissipation, Op Amps	3.1-3.5 <b>Objectives pg. 70, 74, 77</b>
HW1	T 22	Op-Amps - ideal amplifier <b>Lab 1 starts</b>	5.1-5.2 <b>Objective pg. 188</b>
HW2	W 23	Review	
	T 29	<b>EXAM 1</b> , Node Voltage Method, Mesh Current Method	Ch. 4 <b>Objectives pg. 115, 117, 121, 125, 127, 130, 134, 139</b>
	W 30	Thevenin Equivalent – Thevenin and Norton transforms	4.1-4.11 <b>Objectives pg. 144, 147</b>
HW3	T 5 June	Examples <b>Lab1 ends</b>	
HW4	W 6	Examples and Review	
	T 12	<b>Exam 2</b> <b>Lab 2 starts</b>	
	W 13	RLC Circuits: C(Capacitor Equations), L (Inductor Equations), General Solution	6.1-6.3 <b>Objectives pg. 225, 230, 234</b> Ch. 7.1-7.4 <b>Objectives pg. 271, 276</b> 8.1-8.4 <b>Objectives pg. 340, 344, 346, 355, 360</b>
	T 19	RLC Circuits: C(Capacitor Equations), L (Inductor Equations), General Solution (Cont.)	
	W 20	Examples	
HW5	T 26	Maximum Power Transfer, Superposition <b>Lab 2 ends</b>	4.12-4.13 <b>Objective pg. 151</b>
HW6	W 27	Review	
	T 3 July	<b>Exam 3</b> <b>Lab 3 starts</b>	
	W 4 July	Holiday, No Class	
	T 10	Complex Analysis – Basic Math (properties of complex number, rationalization, add, subtract)	Appendix B
	W 11	Complex Analysis - Impedance, Phasors, Ohms Law Impedance Circuits – Kirchoff's Laws, Node-Voltage Method, Thevenin Equivalent	9.1-9.9 <b>Objectives pg. 392, 396, 398, 400, 403, 411, 413, 415</b>
HW7	T 17	Impedance Circuits – Superposition	
HW8	W 18	Review	
	T 24	Holiday, No Class <b>Lab 3 ends</b>	
	W 25	<b>EXAM 4</b>	
	T 31	Review	
HW9&10	W 1 Aug	Review	

**Final: Friday, August 3, 7:30-9:30 AM**