

EGR 260  
Circuit Analysis  
File: N2600F

## **Final Exam Overview**

Textbook: **Electric Circuits, 9<sup>th</sup> Edition** by Nilsson

### **Test#1 Material** ( $\approx 25\%$ )

Basic definitions and units  
Relationships for Q, I, V, P, and W  
KVL, KCL  
Circuits with dependent sources  
 $P_{\text{delivered}} = P_{\text{absorbed}}$   
Simple resistive circuits  
Series and parallel combinations of resistors  
Voltage division and current division

### **Test#2 Material** ( $\approx 35\%$ )

Mesh equations  
Node equations  
Operational Amplifiers

### **Test#3 Material** ( $\approx 35\%$ )

Practical sources (real sources)  
Source transformations  
Superposition  
Thevenin's and Norton's theorems  
Maximum power transfer theorem  
Capacitors and inductors

- physical properties
- basic relationships for V, I, P, and W
- key facts

### **Test#4 Material** ( $\approx 5\%$ )

First order circuits  
Second order circuits  
Unit step functions

### **Items Omitted**

No Y- $\Delta$  and  $\Delta$ -Y Conversions