

## **ELEC2004 Mandatory Problems List, Weeks 1-4:**

All problems below, from Dorf, Introduction to Electric Circuits, 7e or 8e must be completed, and corrected, in a bound (stapled exercise book is fine) problem journal. Any loose sheets you use, must be stuck in to your problem journal.

### **Chapter 4 (Resistive Circuits):**

Problems: 4.2-3, 4.2-7, 4.3-4, 4.3-9 (misnumbered in 8<sup>th</sup> edition as 4.2-9), 4.5-3, 4.6-1, 4.6-2, 4.6-8

Design Problems: 4-4, 4-5

### **Chapter 5 (Linear Circuit Theorems):**

Problems 5.2-2, 5.2-5, 5.3-6, 5.3-8, 5.4-1, 5.4-4, 5.4-9, 5.5-3

Design Problems 5-1, 5-4

### **Chapter 6 (op-amps):**

Problems 6.3-2, 6.3-5, 6.3-7, 6.4-5, 6.5-2, 6.5-9

Design Problems 6-2, 6-4

### **Chapter 7 (inductors and capacitors):**

Problems 7.2-6, 7.3-6, 7.4-4, 7.5-5, 7.5-6, 7.7-4

Design Problem 7-3

### **Chapter 8 (LR and RC circuits)**

Problems 8.3-8, 8.4-2, 8.4-5, 8.4-6, 8.5-4, 8.6-11

Design Problems 8-1, 8-3

### **Chapter 9 (LRC circuits)**

Problems 9.2-1, 9.3-4, 9.4-4, 9.5-2, 9.6-3, 9.8-3, 9.8-7, 9.10-3

Design Problems 9.2, 9.7 (Use of PSpice not mandatory, although using PSpice or Matlab will make finding a good solution easier.)