



## **EECS 210: Electrical Engineering I**

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### **Goals**

This laboratory manual combines six experiments designed to introduce you to the world of electronics and electrical signals. We will concentrate on applications to audio circuits. Please approach the labs with curiosity and a "what if...?" approach. Ask questions and try other circuits if you wish (always keeping safety in mind).

### **Equipment**

- Agilent E3631A Triple output DC power supply
- Agilent 33120A Function Generator
- Agilent 34401A Multimeter
- Written for Agilent 54645A Oscilloscope (could substitute 54622A Oscilloscope)

### **Experiments**

- EECS 210 Laboratory Manual
- EECS 210 TA/Professor Laboratory Manual
- Experiment 1: Telephone Systems and Dialing Tones
- Experiment 2: Voltage Dividers, DC & AC Signals, and Batteries
- Experiment 3: Audio Amp. Frequency Response, Distortion & Clipping
- Experiment 4: Variable Gain Amps; Summers; Intermodulation Prod...
- Experiment 5: Noise and Differential Amplifiers to the Rescue
- Experiment 6: Audio Tone Control Amplifier