

PHY 202/182 Lab Instructor notes
Lab 4: Diodes and Capacitors
Spring 2004

- You will need to get out multi-meters and stop-watches. The large capacitors can be found on the back shelf.
- You will have to explain “reverse bias” of the zener diode. I should put a circuit in the manual illustrating this.
- The students screwed up x -axis versus y -axis on the plots. You will need to explain that the voltage is on the horizontal (x) axis.
- I put new zener diodes in the circuit boards they are Western Electric 426 Y 866 with a 6 to 6.5 V breakdown voltage.
- Tell the students that the electrolytic capacitors have a polarity and must be used with the correct polarity.
- For the last part of the lab, we will use the large capacitors, 10,000 – 40,000 microfarads. Since the power supplies are current limited, we can just hook the capacitors up to the power supplies directly to charge them.
- Put away multi-meters and stop-watches at the end of class.