

Oberlin College Physics 111, Spring 2024

Assignment 2

Monday, 12 February

Reading: By Friday, read LSM chapter 6 (“Gauss’s Law”) and chapter 7 (“Electric Potential”). *Except*, put off reading section 6.4 (“Conductors in Electrostatic Equilibrium”) until after you’ve finished reading chapter 7.

Laboratory: This week, “Electrostatics”, in room 214. Next week, “Capacitance”.

Problems: Due Wednesday, 21 February. These problems are not from the textbook, but from my document “Problems for Physics 111”.

- 9: *Flux in the Earth’s atmosphere*
- 10: *Field due to a pipe of charge*
- 11: *Hanging from a charged wall*
- 12: *The thick shell of charge*
- 13: *Sphere of charge with a spherical cavity*
This is my favorite electrostatics problem.
- 14: *Charge collected by a satellite*