

**Oberlin College Physics 111, Spring 2024**

**Assignment 3**

Monday, 19 February

*Reading:* By Friday, look at LSM chapter 8 (“Capacitance”). Deemphasize the entire chapter; omit sections 8.4 and 8.5.

*Laboratory:* This week, “Capacitance”.

*Guest Lecture:* On Tuesday, 27 February, at 4:35 pm, Dave Lengyel will speak on “Total Solar Eclipses, Past and Future” in Wright 201 (our classroom). As mentioned in the syllabus, if you attend this guest lecture and submit to me a one-paragraph description (on paper, on Wednesday, 28 February), you will be awarded 20 extra-credit problem-set points. (Hand in a different sheet of paper for this description and for your problem assignment due the same day.)

*Early warning:* Exam coming up on Wednesday, 6 March.

*Problems:* Due Wednesday, 28 February. These problems are from my document “Problems for Physics 111”.

- 15: *Electric potential due to a washer*
- 16: *Electric potential due to a quarter disk*
- 17: *Electric potential energy*
- 19: *A conductor with a cavity enclosing a charge*
- 24: *Capacitance for carpenters*
- 25: *Force between capacitor plates*