

## Lecture 8

### Pre-Lecture Preparation (due within the first 5 minutes of class):

- Read pages 752 – 756 in the textbook (Serway 9<sup>th</sup> edition) and do the following:
  - 1) Quick Quizzes: 25.3 – 25.4
  - 2) Book Objective Questions (p. 767): 1, 12, and 13
  - 3) Book Problems (p. 770): 5

### Goals for the Lecture:

- 1) Be able to calculate electric potential difference ( $\Delta V$ ) from an electric field using  $\Delta V = - \int_A^B \vec{E} \cdot \vec{ds}$
- 2) Be able to calculate the electric potential energy and the electric potential of point charges
- 3) Be able to calculate the electric potential difference ( $\Delta V$ ) from a charge distribution using

$$V = \int \frac{k dq}{r}$$

### Post-Lecture Study Guide (I do not collect this):

Review the worksheets or other lecture material within 24 hours (preferably the same day as the lecture) to reinforce the ideas. Review the pre-lecture questions to make sure you understand them.

Do problems:

Ch 25: Conceptual Questions: none

Ch 25: Objective Questions: 10 and 11

Ch 25: Problems: 14 and 15\*

\* turn in with the next pre-lecture assignment

Continue with the additional recommended study problems from chapter 25