

# 2020A - Electricity and Magnetism (Fall 2015)

Course instructor: Dr. Sean Tulin

**Outline:** We will cover introductory topics in electromagnetism, including: electrostatics, Coulomb's law, Gauss's law, electric fields and potentials, conductors, electric currents, moving charges, magnetostatics, electromagnetic induction, and Maxwell's equations. We will introduce concepts from vector calculus and special relativity that are essential for a deep understanding of this topic.

**Course text:** *Electricity and Magnetism* by Edward Purcell and David Morin. This is a classic book written by a Nobel Laureate (Purcell). We will be following the text closely.

**Grading and tests:** There will be weekly homework assignments, two midterm tests, and a final exam. Your final grade will be based as follows: your homework grade counts 30%, each midterm counts 20%, and your final exam counts 30%.

Homework problems are the most essential part of this class. Assignments will be due on **Mondays before 4pm**. You may turn in your assignments during class or at my office (in person or under my door).

No extensions will be given unless there is an emergency or other extreme circumstance. Late homework will be penalized 10% per day (or fraction thereof).

The midterm dates are to be determined. See course webpage for latest information.

**Expectations:** I expect that all homework you turn in will be entirely your own work. You may discuss homework problems with your peers, but you must write your own solutions independently.

**Office hours:** Friday 2–3pm or by appointment.

## Contact information:

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