

Physics 15-030-708
Electrodynamics
Randy Johnson
Spring, '05

Required Text

J.D. Jackson, *Classical Electrodynamics*, 3rd Edition, Wiley and Sons, 1999.

Additional Texts

Graduate Level:

Landau & Lifshitz, *The Classical Theory of Fields*.

Landau & Lifshitz, *Electrodynamics of Continuous Media*.

Di Bartolo, *Classical Theory of Electromagnetism*.

Undergraduate Level:

Panofsky & Phillips, *Classical Electricity and Magnetism*.

Reitz, Milford, & Christy, *Foundations of Electromagnetic Theory*.

Pollack & Stump, *Electromagnetism*.

These texts will be on reserve in the library. In addition to the texts, Mark Jarrell and Charlie Ebner from OSU have prepared an extensive set of lecture notes that can be found on the web at:

http://www.physics.uc.edu/~jarrell/COURSES/ELECTRODYNAMICS_HTML/course_EM.html

Course Web Page : <http://www.physics.uc.edu/~johnson/EM/index.html>

On web page, you will be able to find a detailed outline of the course, the problem sets and solutions, a list of previous exams, and the Mathematica examples used in the course.

Grading

Homework	50% of grade
Midterm	17% of grade
Final	33% of grade

Homeworks are assigned on Friday of each week and are due the following Friday. **No late homeworks will be accepted.** Solutions will be posted on the web shortly after class on the due date.

Outline of course with approximate dates

3/28	Chapter 5 – Faraday’s Law
3/30-4/6	Chapter 6
4/8-4/11	Chapter 7
4/13-15	No Class
4/18-20	Chapter 7 (conclusion)
4/22-29	Chapter 8
5/2-6	Chapter 9
5/9	Midterm
5/11	Chapter 9 (conclusion)
5/13-20	Chapter 10
5/23-25	Chapter 11
5/27-6/3	Chapter 12
6/6	Final Exam – 12:00 noon

