

Physics 721: Theoretical Physics - Electrodynamics

Spring, 2005

Instructor: Prof. Daniel Chung (danielchung@wisc.edu)

Textbook:

Classical Electrodynamics (Jackson)

Course website:

<http://uw.physics.wisc.edu/~djchung/physics721/721.html>

Lectures: 11:00 AM - 11:50 AM MWF at Sterling 3331

Office hours: by appointment at 6203 Chamberlin (phone: 265-3133)

Final exam: 5/12/2005 2:45 PM - 4:45 PM

Grading:

homework (75 %)

final (25 %)

Topics:

1. Maxwell Equations and relativistic tensors
2. Relativistic Green's function
3. Electrostatics
4. Steady currents and magnetostatics
5. Time dependent fields and currents
6. Wave guides
7. Radiation by prescribed sources
8. Scattering of light
9. Selected advanced topics