PHYSICS 6XXX

Classical Electrodynamics SPRING 2008

INSTRUCTOR Roberto Vega

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OFFICE

HOURS

By arrangement.

TEXT Classical Electrodynamics by J.D. Jackson

GRADING The final course grade will be determined as follows. Homework 50%,

exams 50%.

HOMEWORK There will be approximately one homework set per week due one week

after the assignment.

EXAMS There will be two partial exams. The tentative schedule is: Exam #1

on March 4, 2008; Exam #2 on April 29, 2008.

General Topics to be Covered

- 1. Maxwell's Equations (static case)
- 2. Boundary Value Problems and Green's Theorems
- 3. The Method of Images for Static arrangement of charges
- 4. Maxwell's Equation without Sources
- 5. The Wave Equation and Electromagnetic Waves
- 6. Conservation Laws
- 7. Propagation in Media
- 8. Radiation
- 9. Scattering
- 10. Relativity