

Syllabus (1/2/05)  
**PHYU602 Electricity and Magnetism**  
Spring 2005      Professor Wu

Text: Electromagnetism: Principles and Applications  
P. Lorrain and D. R. Corson, 2nd Edition, Freeman

**Your grade will be based on 20% homework, 30% midterm, and 50% final**

My office hours are 1 - 2 pm, Mon. Wed. Thurs.

I can also be contacted at: [fywu@neu.edu](mailto:fywu@neu.edu) and 617-373-2925

- 1st week (1/5 - 1/7):  
Scalars and vectors
- 2nd week (1/10 - 1/14):  
Vectors, electric field and potential
- 3rd week (1/17 - 1/21):  
Gauss' law, capacitance, energy and forces
- 4th week (1/24 - 1/28):  
Direct current circuits
- 5th week (1/31 - 2/4):  
Dielectrics (Chapters 7 and 8)
- 6th week (2/7 - 2/11):  
Vector potential, Ampere's law
- 7th week (2/14 - 2/18):  
The Lorentz force, Faraday's law
- 8th week (2/21 - 2/25):  
Mid-term, inductance, magnetic forces
- **Spring Break Week** (2/28 - 3/4)
- 9th week (3/7 - 3/11):  
Magnetic materials
- 10th week (3/14 - 3/18):  
Complex numbers, alternating current
- 11th week (3/21 - 3/25):  
A. C. circuits, transformers
- 12th week (3/28 - 4/1):  
Maxwell equations
- 13th week (4/4 - 4/8):  
Maxwell equations (continued)
- 14th week (4/11 - 4/13 *last day of class*):  
Poynting vector, review
- **Final Examination** (4/15 - 4/22)