

SYLLABUS

**Textbook:** Halliday, Resnick, & Walker, Fundamentals of Physics, 9<sup>th</sup> edition, (John Wiley, 2010).

**Useful References:**

A host of introductory texts is shelved in Gordon Library, QC 21-23. Several are also conveniently located in Olin 118 (a very comfortable room to study in). Examples are:

Serway & Beichner, Physics for Scientists and Engineers

Tipler, Physics

Wolfson & Pasachoff, Physics

Young & Freedman, University Physics

**LECTURE TOPICS:**

The schedule of day-by-day lecture topics is listed below. To get the most out of each lecture, you should read -- AHEAD OF TIME! -- the respective objectives and skim through the relevant sections in the text as indicated, so that the lecture discussions will have something to stick to in your memory banks.

| <b>DATE</b>     | <b>LECTURE TOPIC</b>                                  |
|-----------------|---|
| 1. Tu 10/23     | Introduction to Course                                |
| 2. W 10/24      | Electric Charge<br>(Ch. 21, Secs. 1 through 6)        |
| 3. F 10/26      | Electric Charge                                       |
| 4. M 10/29      | Electric Fields<br>(Ch. 22, Secs. 1 through 9)        |
| 5. W 10/31      | Electric Fields                                       |
| 6. F 11/2       | Gauss' Law<br>(Ch. 23, Secs. 1 through 9)             |
| 7. M 11/5       | Gauss' Law  |
| <b>Wed 11/7</b> | <b>EXAMINATION NO. 1 (on Chapters 21, 22, and 23)</b> |
| 8. Fri. 11/9    | Electric Potential<br>(Ch. 24, Secs 1 to 12)          |
| 9. M 11/12      | Capacitance<br>(Ch. 25, Secs. 1 through 8)            |
| 10. W 11/14     | Capacitance   |
| 11. F 11/16     | Current and Resistance<br>(Ch. 26, Secs. 1 through 9) |
| 12. M 11/19     | Circuits<br>(Ch. 27, Secs 1 through 9)                |

13. M 11/26                      Circuits
- Wed. 11/28                      EXAMINATION NO. 2 (ON Chapters 24, 25, 26,27 )**
14. F 11/30                      Magnetic Fields  
(Ch. 28, Secs. 1 through 10)
15. M 12/3                        Magnetic Fields
16. W 12/5                        Magnetic Fields due to Currents  
(Ch. 29, Secs. 1 through 6)
17. F 12/7                        Magnetic Fields due to Currents
18. M 12/10                      Induction and Inductance  
(Ch. 30, Secs 1 through 6)
- Wed. 12/12                      EXAMINATION NO. 3 (ON Chapters 28, 29, and 30)**

*If you need course adaptations or accommodations because of a disability, or if you have medical information to share with me, please make an appointment with T. H. Keil ([thkeil@wpi.edu](mailto:thkeil@wpi.edu)) as soon as possible. If you have not already done so, and you are a student with disabilities, and you believe that may need accommodations in this class, you are encouraged to contact the Disability Services Office (DSO) as soon as possible to ensure that such accommodations are implemented in a timely fashion. The DSO is located in Student Development and Counseling Center, (508) 831-4908.*