PH 1120 Term D 2015
Electricity & Magnetism R.S. Quimby

SYLLABUS

Textbook: Young & Freedman, UNIVERSITY PHYSICS, 13th edition
(Pearson/Addison Wesley, 2011)

Useful References and Study Aids:

Serway, PHYSICS FOR SCIENTISTS AND ENGINEERS
Halliday and Resnick & Walker, FUNDAMENTALS OF PHYSICS
Wolfson and Pasachoff, PHYSICS
Feynman, LECTURES ON PHYSICS, Vol. 2 (lots of physical insight!)

Many other introductory texts, some shelved in Gordon Library, QC 21-23 and some in Olin 118 are available.

The lectures are intended to supplement, rather than replace, the assigned reading material in the textbook. Getting two or more points of view is very important to the learning process, and helps to reinforce the new material. It is highly recommended that you read through the appropriate sections of the book before coming to lecture. Then, after lecture you should go through the reading again, this time studying the example problems in more detail.

	DATE	LECTURE TOPIC	STUDY GUIDE	HOMEWORK
1.	M 3/16	Introduction to course Coulomb's law Ch. 21, Sec. 1, 2, 3	1, Objective 1	
2.	W 3/18	Electric Fields Ch. 21, Sec. 4, 5	1, Objective 2	1
3.	F 3/20	Electric Field Lines and Flux Ch. 21, Sec. 6 Ch. 22, Sec. 1, 2	1, Objective 2	2
4.	M 3/23	Gauss's Law Ch. 22, Sec. 3, 4, 5	1, Objective 3	3
5.	W 3/25	Electric Potential Ch. 23, Sec. 1	2, Objective 4	4
	Fri. 3/27	EXAMINATION NO. 1 (ON STUDY GUIDE 1)		
6.	M 3/30	Electric Potential Ch. 23, Sec. 2, 3, 4	2, Objectives 5,6	5
7.	W 4/1	Capacitance Ch. 24, Sec. 1, 2	2, Objective 7	6

8. F 4/3	Capacitance and Energy Ch. 24, Sec. 3	2, Objective 8	7
9. M 4/6	Resistance and Current Ch. 25, Sec. 1, 2, 3	3, Objective 9	8
Wed. 4/8	EXAMINATION NO. 2 (ON STUDY GUIDE 2)		
10. F 4/10	DC Circuits Ch. 25, Sec. 4, 5	3, Objective 10	9
11. M 4/13	More on Circuits Ch. 26, Sec. 1, 2, 3, 4	3, Objective 11	10
12. W 4/15	Magnetic Forces Ch. 27, Sec. 1, 2, 4, 5, 6	3, Objective 12	11
13. F 4/17	The Biot-Savart Law Ch. 28, Sec. 2, 3, 4, 5	4, Objective 13	12
Wed. 4/22	EXAMINATION NO. 3 (ON STUDY GUIDE 3)		
14. F 4/24	Ampere's Law Ch. 28, Sec. 6, 7	4, Objective 14	13
15. M 4/27	Magnetic Flux Ch. 27, Sec. 3	4, Objective 15	14
16. W 4/29	Faraday's Law, Lenz's Law Ch. 29, Sec. 1, 2, 3	4, Objective 16	15
17. F 5/1	More on Faraday's Law Ch. 29, Sec. 6, 8	4,	16
Mon. 5/4	EXAMINATION NO. 4 (ON STUDY GUIDE 4)		

If you need course adaptations or accommodations because of a disability, or if you have medical information to share with us, please make an appointment with Prof. Quimby 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. Further information is at http://www.wpi.edu/offices/disabilities.html***, phone (508) 831-4908***