PHYS407 Electromagnetic Theory, Fall 2018

INSTRUCTOR: Dr. Pengwang Zhai
Office: Phys. 427
Ph.:410-455-3682

DATES AND LOCATION: MoWeFr 10:00AM-10:50AM, Math & Psychology 103
First Day of Class: August 29
Last Day of Class: December 10
Final Exam: 10:30 am – 12:30 pm, Dec. 17 2018

OFFICE HOURS: MoWe 10:50AM-11:50AM or Through Email Appointment

TEXTS: Introduction to Electrodynamics, 4th ed., David J. Griffiths, Pearson (2012)

Prerequisites: PHYS 224 & MATH 225, C and Better.

GRADING:

Homework (25%),
Two Midterm Exams: (20% each),
Final Exam: (35%).

- A: 90% and above
- B: 80%-89%
- C: 70%-79%
- D: 60%-69%
- F: below 60%.

Course Strategy:

Email: All emails for this class should have PHYS407 in the Subject line.

All exams will be in class. Phones, calculators, computers, ipads, etc. are expressly forbidden to be turned on during exams.

This course will be covering the theory of classical electrodynamics. We will use the most excellent text "Introduction to Electrodynamics, 4th edition" by David Griffiths. During the course of the semester we will cover most of the topics in Chapters 1-7. In addition, we will supplement additional materials on electromagnetic waves and radiations if time permits.

Reading the sections of the textbook corresponding to the assigned homework exercises is considered part of the homework assignment; you are responsible for material in the assigned reading *whether or not it is discussed in the lecture*. Homework will be due weekly in Friday's lecture. Late homework submission is not accepted. Your lowest homework score will be dropped.

Reading is an essential part of PHYS 407! Reading the text before class is very important. Lecture is to clarify your understanding, to help you make sense of the material. I will assume you have done the required readings in advance! Griffiths is one of the best (and most readable) texts I know of - it will make a huge difference if you spend the time and effort to carefully read

and follow the text.

Classroom Etiquette: Please turn off all cell phones and pagers when entering any classroom. Please do not throw vegetables at the instructor. Private chatter during lecture is very distracting, but it is perfectly OK to interrupt the lecture by yelling “Question!” Questions in lecture are always good, and are strongly encouraged!

I strongly encourage collaboration, an essential skill in science and engineering (and highly valued by employers!) However, it is also important that you OWN the material. I strongly suggest you start homework by yourself (and that means really making an extended effort on every problem) Then work with a group, and finally, finish up on your own - write up your own work, in your own way.

Academic Honesty Policy

By enrolling in this course, each student assumes the responsibilities of an active participant in UMBC's scholarly community, in which everyone's academic work and behavior are held to the highest standards of honesty. Cheating, fabrication, plagiarism, and helping others to commit these acts are all forms of academic dishonesty, and they are wrong. Academic misconduct could result in disciplinary action that may include, but is not limited to, suspension or dismissal. To read the full Student Academic Conduct Policy, consult the UMBC Student Handbook, the Faculty Handbook, or the UMBC Policies section of the UMBC Directory. [Statement adopted by UMBC's Undergraduate Council and Provost's Office.]