

THE UNIVERSITY OF TEXAS AT EL PASO COLLEGE OF
SCIENCE
DEPARTMENT OF PHYSICS

Course #:	PHYS 4341	
Course Title:	Electromagnetics I	
Credit Hours:	3.0	
Course Meetings & Location:	PSCI 222A: 3:00 pm to 4:20 pm (Tuesday and Thursday)	
Prerequisite Courses:	MATH 2326, 3323, and 3335, and PHYS 2421 w/C or better	
Instructor(s):	Dr. Md Fhokrul Islam	Dr. Kushantha P. Withanage
Office Location:	PSCI 121E/PSCI 200	PSCI 134
E-mail:	mfislam@utep.edu	kpwithnage@utep.edu
Office Hours:	Monday: 10 am – 11 am	Wednesday: 10 am- 11 am
Textbook(s), Materials:	Main textbook: <i>Introduction to Electrodynamics</i> by David J. Griffiths (Fourth Edition)	
Course Objectives (Learning Outcomes):	<p>The objective of PHYS 4341, which is the first part of a sequence of advanced undergraduate physics courses at the junior or senior level, is to provide students with a rigorous problem-solving abilities and description of physical phenomena.</p> <p>We will study the following topics: Vector Analysis, Electrostatics, Potentials, Electric Fields in Matter, Magnetostatics, Magnetic Fields in Matter, and Electrodynamics.</p> <p>Final exams must be given at the scheduled time; any/all exceptions must be approved by both the Department Chair and the Dean.</p>	
Course Activities/Assignments:	<p>Homework Several homework sets will be assigned. Homework is a key component of this course, as acquiring and improving your analytical skills critically depend on the number and variety of problems you attempt to solve. Solving homework problems in groups is encouraged. Due dates for homework will be announced, and no late homework will be accepted.</p> <p>Class participation: Each student will be assigned to solve homework problems on the whiteboard during class at some point in the semester.</p>	
Course Activities/Assignments:	Feel free to form study groups with your classmates. Make sure that you understand the solutions and write them up yourself. There is a strong correlation between homework scores and exam scores!	
Make-up Policy:	An extension of the due date for the homework as well as the make-up of missing exams will be granted only in extraordinary circumstances.	
Civility Statement:	<p>Cell phones and pagers should be turned off during class time. When absences occur, it is your responsibility to obtain handouts and notes from your peers.</p> <p>Academic integrity is to be always practiced.</p>	

Disability Statement:	<p>If you have a disability and need classroom accommodations, please contact the Center for Accommodations and Support Services (CASS) at 747-5148, or by email to cass@utep.edu, or visit their office located in UTEP Union East Building, Room 106. For additional information, please visit the CASS website at www.sa.utep.edu/cass.</p> <p>The student is responsible for presenting to the instructor any accommodation letters and instructions.</p>
Military Statement:	<p>If you are a military student with the potential of being called to military service and/or training during the semester, you are encouraged to contact the instructor at the beginning of the semester.</p>

Grading Policy:

Grades in this course will be based on your scores on two midterm exams, a final exam (comprehensive, but with emphasis on the last part of the course), homework assignments, and class participation

Class participation	10%
Midterm exams:	30%
Final exam:	30% (comprehensive)
Homework:	30%

Grade	Mark range
A	86-100%
B	70-85 %
C	60-69 %
D	50- 59 %
F	< 50 %

Schedule of class

Week	Content		Observations
Aug 26 – 28	Ch 1	Vector analysis: review	
Sep 2 – 4	Ch 2	Electrostatics	
Sep 9 – 11	Ch 2&3	Electrostatics & potentials	
Sep 16 – 18	Ch 3	Potentials	
Sep 23 – 25		Midterm I, Thursday Sep 25	
Sep 30 – Oct 2	Ch 4	Electric fields in matter	
Oct 7 – 9	Ch 4	Electric fields in matter	
Oct 14 – 16	Ch 5	Magnetostatics	
Oct 21 – 23	Ch 5	Magnetostatics	
Oct 28 – 30		Midterm II, Thursday Oct 30	Oct 29: Course drop deadline No automatic “W” after this day
Nov 4 – 6	Ch 6	Magnetic Fields in Matter	
Nov 11 – 13	Ch 6	Magnetic Fields in Matter	
Nov 18 – 20	Ch 7	Electrodynamics	
Nov 25 – 27	Ch 7	Electrodynamics	Nov 27-28 Thanksgiving-holidays
Dec 2 – 4		Review	Dec 4: Last day of classes Dec 5: dead day
Dec 8 – 10		FINAL EXAM (Comprehensive) Thursday Dec. 11, 4:00-6:45 PM PSCI 222A	Finals