Electromagnetism II

Winter 2018

Instructor:	Subhadeep Gupta (deepg@uw.edu)		
Lectures:	Tuesdays and Thursdays 9:00-10:20 am, Rm A118 Phys/Astr Building (A-wing) $$		
Office:	B428 Phys/Astr Building (616-9649)		
Office Hour:	Wednesday 2-3 pm in B428 (or by appointment, please email)		
Tutorial Website:	http://depts.washington.edu/uwphyttl/tiap/EM/322/		
TA's:	Bert Xue (Tutorial Head TA, bertx@uw.edu).		
Textbook:	David Griffiths, Introduction to Electrodynamics, fourth edition		
Homework:	<ul><li>HW problems will be assigned each week, to be worked out completely and handed in during class on (typically) Thursday of the following week.</li><li>You may also turn in your HW to the instructor's mailbox in the Physics main office A portion of each week's HW assignment will be graded.</li><li>Late HWs will be given a score of zero.</li><li>There will be no HW assigned during exam weeks (see schedule).</li></ul>		
Exams:	There will be two midterm exams and a two-hour final exam (see course schedule). Each of these three exams will be in A118 and will be closed book. You will be be provided an equation-sheet containing all relevant formulae. There will be no make-up exams. You may return an exam for regrading within one week after it was distributed, but you must attach a brief statement explaining the possible error in the original grading.		
Course grade:	20% of your grade is assigned to each of Homework, Exam 1, Exam 2, Final, and Tutorial ("Quiz Section").		
Course Website:	http://faculty.washington.edu/deepg/phys322/ Homework solutions will be made available the day after the due-date.		

If you would like to request academic accommodations due to a disability, please contact Disability Resources for Students, 011 Mary Gates, 543-8924, uwdrs@uw.edu, and inform me (the instructor) so we can discuss the accommodations you might need for class.

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Week	Date	Topic	Text Reading
1	Jan 3	Lorentz Force Law, Biot-Savart Law	5.1,2
	Jan 5	Divergence and curl of B	5.3
2	Jan 10	Magnetic Vector Potential	5.4
	Jan 12	Magnetization	6.1
3	Jan 17	Field of a magnetized object	6.2
	Jan 19	The field H	6.3
4	Jan 24	Linear and non-linear materials	6.4
	Jan 26	First Exam	
5	Jan 31	EMF	7.1
	Feb 2	Electromagnetic induction	7.2
6	Feb 7	Maxwell's Equations	7.3
	Feb 9	Charge and Energy	8.1
7	Feb 14	Momentum	8.2
	Feb 16	"Magnetic forces do no work"	8.3
8	Feb 21	Waves in 1D	9.1
	Feb 23	Second Exam	
9	Feb 28	Electromagnetic waves in vacuum	9.2
	Mar 1	Electromagnetic waves in matter	9.3
10	Mar 7	Absorption and Dispersion	9.4
	Mar 9	Guided waves	9.5
11	Mar 15	Final Exam	

Course Schedule

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Physics 322