

Electromagnetic Theory, fall 2018, tentative schedule

	Monday	Wednesday	Friday
Aug.	27 Overview Preface, Advertisement	29 Vector Algebra Section 1.1	31 Vector Derivatives 1.2 PS1(a)
September	3 Labor Day	5 Vector Integrals 1.3	7 Curvilinear Coordinates 1.4 PS1(b)
	10 The Delta Function 1.5, 1.6	12 The Electric Field 2.1	14 Gauss's Law 2.2 PS2
	17 The Electric Potential 2.3	19 Work and Energy 2.4	21 Conductors 2.5 PS3
	24 Review Session and Test (Vectors and Electric Fields)	26 Laplace's Equation 3.1	28 The Method of Images 3.2
October	1 Separation of Variables 3.3 PS4	3 The Multipole Expansion 3.4	5 Polarization 4.1
	8 Field of a Polarized Object 4.2 PS5	10 The D Field 4.3	12 Linear Dielectrics 4.4
	15 Velocity-Dependent Forces 12.3.1 PS6	17 Review Session and Test (Electrostatics)	19 Fall Break
	22 The Lorentz Force Law 5.1	24 The Biot-Savart Law 5.2	26 Ampere's Law 5.3 PS7
	29 The Vector Potential 5.4	31 Magnetization 6.1	2 Field of a Magnetized Object 6.2 PS8
November	5 The H Field 6.3	7 Linear and Nonlinear Media 6.4	9 Ohm's Law 7.1.1 PS9
	12 Review Session and Test (Magnetostatics)	14 Motional EMF 7.1	16 Faraday's Law 7.2
	19 Inductance and Magnetic Energy 7.2	21 Maxwell's Equations 7.3	23 Thanksgiving Break
	26 Materials and Boundaries 7.3 PS10	28 The Poynting Vector 8.1	30 Potentials and Gauges 10.1
December	3 Additional Topics PS11	5 Additional Topics	7 Review Session
	10	12 Final Exam (12:30 - 2:20 pm)	14

(Reading assignments are from Griffiths, Introduction to Electrodynamics.)