

# Electromagnetic Theory, fall 2019, tentative schedule

	Monday	Wednesday	Friday
Aug.	26 Overview Preface, Advertisement	28 Vector Notation Section 1.1	30 Vector Algebra 1.1 <b>PS1(a)</b>
September	2 <b>Labor Day</b>	4 Vector Derivatives 1.2	6 Vector Integrals 1.3 <b>PS1(b)</b>
	9 Curvilinear Coordinates 1.4	11 The Delta Function 1.5, 1.6	13 The Electric Field 2.1 <b>PS2</b>
	16 Gauss's Law 2.2	18 Using Gauss's Law	20 The Electric Potential 2.3 <b>PS3</b>
	23 <b>Review Session and Test</b> (Vectors and Electric Fields)	25 Work and Energy 2.4	27 Conductors 2.5
	30 Laplace's Equation 3.1 <b>PS4</b>	2 Solving Laplace's Equation 3.2, 3.3	4 The Multipole Expansion 3.4
October	7 Polarization 4.1 <b>PS5</b>	9 Field of a Polarized Object 4.2	11 The D Field 4.3
	14 Linear Dielectrics 4.4	16 Velocity-Dependent Forces 12.3.1 <b>PS6</b>	18 <b>Fall Break</b>
	21 <b>Review Session and Test</b> (Electrostatics)	23 The Lorentz Force Law 5.1	25 The Biot-Savart Law 5.2
	28 Ampere's Law 5.3 <b>PS7</b>	30 The Vector Potential 5.4	1 Magnetization 6.1
	4 Field of a Magnetized Object 6.2 <b>PS8</b>	6 The H Field 6.3	8 Linear and Nonlinear Media 6.4
November	11 Ohm's Law 7.1.1 <b>PS9</b>	13 <b>Review Session and Test</b> (Magnetostatics)	15 Motional EMF 7.1
	18 Faraday's Law 7.2	20 Inductance and Magnetic Energy 7.2	22 Maxwell's Equations 7.3 <b>PS10</b>
	25 Materials and Boundaries 7.3	27 The Poynting Vector 8.1	29 <b>Thanksgiving Break</b>
	2 Potentials and Gauges 10.1	4 Additional Topics <b>PS11</b>	6 Review Session
	9	11 <b>Final Exam</b> (12:30 - 2:20 pm)	13

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