

Tentative Schedule, Jackson E&M, Class 721, Fall 2018.

		Lecture		Topic	Sections in Jackson
Month	Date	HW	Number		
September	4 -		1	Vector calculus	I.1
	9 -			Vector calculus	– I.6
				Coulomb's law, Electric fields	1.1 –
	– 13		5	Laplace Equation, Green's function	2.1 – 2.8
	16		6	Boundary value problems	
	– 20	18		Conformal methods	notes
	23		9	∇^2 in rectangular/spherical coords.	2.9
	– 27	25			– 3.1
October	30		12	Spherical harmonics	3.2 –
	– 4			General solution of $\nabla^2\Phi=0$	
	7		15	Regular singular point	
	– 11	9		Regular singular point	
	14		18	Bessel functions	– 3.13
	– 18	16		Electrical multipoles	4.1 – 4.7
	21		21	Magnetostatics	
	– 25	23		Magnetostatics	5.1 –
November	28		Exam	.	
	– 1			EMF, Faraday's law	
	4		27	Polarization	
	– 8	6		Energy in magnetic fields	
	11		30	Magnetic materials	– 5.18
	– 15	13		Maxwell's Eqs	6.1 –
	18		33	Lienert Weichert potentials	
	– 22			Energy conservation,	
December	25		36	Stress tensor	– 6.13
	– 27	27		Waves	7.1– 7.11
	2		38	Radiation	9.1
	– 6			Radiation	– 9.12
	9		41	Particle motion	notes
	– 11			Plasma waves	notes