Physics 544		Course Schedule	Spring 2019	
Week	Date	Topic	Text Reading	
1	Apr 1	Review of Maxwell's Equations	Chp 7	
	Apr 3	Charge and Energy	8.1	
2	Apr 8	Momentum	8.2	
	Apr 10	Waves in 1D	9.1	
3	Apr 15	Electromagnetic waves in vacuum	9.2	
	Apr 17	Electromagnetic waves in matter	9.3	
4	Apr 22	Absorption and Dispersion	9.4.1, 9.4.2	
	Apr 24	Electron Theory of Materials	9.4.3	
5	Apr 29	Guided Waves	9.5.1, 9.5.2	
	May 1	Coaxial lines and resonant cavities	9.5.3	
6	May 6	Midterm Exam		
	May 8	Potential formulation and gauges	10.1.1, 10.1.2	
7	May 13	Lorentz gauge. Canonical momentum	10.1.3, 10.1.4	
	May 15	Retarded and advanced potentials	10.2.1, 10.2.2	
8	May 20	Leinard-Weichert potentials	10.3.1, 10.3.2	
	May 22	Radiation. Electric dipole radiation	11.1.1, 11.1.2	
9	May 27	Magnetic dipole radiation	11.1.3, 11.1.4	
	May 29	Power radiated by a point charge	11.2.1	
10	May 28, 30	No class (Work on paper)		
11	June 3	In class presentation I		
	June 5	In class presentation II		

Final Paper Due June 7, 5PM