

PHY 905 Section 6, Accelerator Physics, Tentative Schedule (to be revised as term progresses)

Date	Weekday	Instructor	Contents	HW assign	HW Due	
1/7/2020	Tuesday	Lund	Introduction to Accelerators I	1		
1/9/2020	Thursday	Lund	Introduction to Accelerators II / Injectors			
1/14/2020	Tuesday	Hao	Magnetic Field Calculation	2	1	
1/16/2020	Thursday	Hao	Transverse Dynamics, Focusing Force			
1/21/2020	Tuesday	Hao	Transverse Dynamics, Hamiltonian Approach	3	2	
1/23/2020	Thursday	Hao	Transverse Dynamics, Matrix Form, Simple Lattices			
1/28/2020	Tuesday	Lund	Solenoid Focusing and Canonical Angular Momentum	4	3	
1/30/2020	Thursday	Lund	Parametric Instability, Phase-Amplitude Form or Orbit, Phase Advance			
2/4/2020	Tuesday	Lund	Courant Snyder Invariant, Beatron Motion	5	4	
2/6/2020	Thursday	Lund	Acceleration and Normalized Emittance			
2/11/2020	Tuesday	Hao	Off Momentum Particles, Dispersive Effect	6	5	
2/13/2020	Thursday	Hao	Momentum Compaction			
2/18/2020	Tuesday	Hao	Chromatic Effect	7	6	
2/20/2020	Thursday	Lund	Nonlinear Resonances			
2/25/2020	Tuesday	Lund	Dispersive and Chromatic Effects	8	7	
2/27/2020	Thursday	Lund	Dispersive and Chromatic Effects			
3/3/2020	Tuesday	No class, spring break				
3/5/2020	Thursday					
3/10/2020	Tuesday	Hao	Longitudinal Dynamics I	8	7	
3/12/2020	Thursday	Hao	Longitudinal Dynamics II			
3/17/2020	Tuesday	Lund	Acceleration Primer	9	8	
3/19/2020	Thursday	Lund	RF Acceleration			
3/24/2020	Tuesday	Lund	RF Acceleration, RF Cavities	10	9	
3/26/2020	Thursday	Hao	Dynamics in Electron Storage Rings			
3/31/2020	Tuesday	Hao	Synchrotron Radiation Light Sources	11	10	
4/2/2020	Thursday	Hao	Free Electron Laser			
4/7/2020	Tuesday	Lund	RF Cavities, RF Bunching			
4/9/2020	Thursday	Lund	Space Charge Effects	12	11	
4/14/2020	Tuesday	Hao	Collider			
4/16/2020	Thursday	Hao	Beam Cooling		12	

Reading Period: 4/21/2020 Tuesday -> 4/23/2020 Thursday

Final Exams: 4/24/2020 Friday -> 5/06/2020 Wednesday

