PHYS 5110: Introduction to Nuclear and Particle Physics

January 2008 Schedule

Review of modern physics, basic concepts, and nuclear phenomenology

			Pre–reading	Assign	Due
Week 1					
	01/07	Introduction			
	01/09	Review of special relativity	Appendix B		
	01/11	Review of Rutherford scattering	Appendix C		
Week 2					
	01/14	Basic concepts	Chapter 1	HW *I*	
	01/16	Exercises on special relativity	Problems B.1 to B.10	HW *II*	
	01/18	Exercises on Rutherford scattering	Problems C.1 to C.3	HW *III*	
Week 3					
	01/21	Martin Luther King Jr. (No class)			
	01/23	Exercises on basic concepts	Problems 1.1 to 1.11		HW *I*
	01/25	Binding energy	Sections 2.1 and 2.2		
Week 4					
	01/28	Radioactive decays	Sections 2.3 and 2.4		HW *II*
	01/30	The Bethe–Weizsäcker model	Sections 2.5 to 2.9	HW *IV*	
	02/01	Exercises on nuclear phenomenology	Problems 2.1 to 2.17		HW *III*

- HW *I*: Assignment on special relativity
- HW *II*: Assignment on Rutherford scattering
- HW *III*: Assignment on basic concepts
- HW *IV*: Assignment on nuclear phenomenology

Readings are from the text book *"Nuclear and Particle Physics,"* by B. R. Martin.
Last update: December 29, 2007