

Week	Date	Topic	Curriculum Topic	AAPM/RSNA Physics Tutorial	Faculty
1	1/12/2012	Intro to Course			All
3	1/26/2012	Atoms, Radiation, and Radioactivity	1. Structure of the atom, 2. Electromagnetic radiation 3. Particulate radiation		BKS
5	2/9/2012	Interactions of Radiation and Tissue	4. Interactions of ionizing radiation with matter	1. X-ray attenuation, 2. X-ray interactions	BKS
7	2/23/2012	Radiation Measurements and Units	5. Radiation units		RD
9	3/8/2012	X-Ray Tubes and Spectra	6. X-ray production	1. X-ray production, 2. X-ray generators	RD
11	3/22/2012	Basic Concepts in Radiography	10. X-ray projection imaging concepts and detectors	Clinical Applications of Basic X-ray Physics Principles	DZ
13	4/5/2012	Basics of X-Ray & Mammography Systems	6. X-ray production	1. Clinical Applications of Basic X-ray Physics Principles 2. X-ray production	KMK/DZ
15	4/19/2012	Basic Radiation Biology	8. Biologic effects of ionizing radiation		KMK
17	5/3/2012	Radiation Effects	8. Biologic effects of ionizing radiation		KMK
19	5/17/2012	Fundamentals of Radiation Protection	9. Radiation protection and associated regulations	Radiation Safety Considerations for Diagnostic Radiology Personnel	DZ
21	5/31/2012	Radiation Risks	9. Radiation protection and associated regulations		KMK
23	6/14/2012	Foundations of Medical Image Quality: Contrast, Sharpness and Noise	7. Basic imaging science and technology 10. X-ray projection imaging concepts and detectors		RD
25	6/28/2012	Quiz 1			KMK