

PHYSICS AND INSTRUMENTATION IN NUCLEAR MEDICINE
FALL 2007 SYLLABUS

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TEXTBOOK: Diagnostic: Physics in Nuclear Medicine, Third Edition, Cherry, Sornson & Phelps, Saunders 2003.

8:00-9:00 AM, Brigham and Women's Hospital, Hollenberg Conference Room, Thorn Research Building - 3rd Floor

Day	Date	Who	Description
WED	5 Sep	GEF	Introduction; Atomic Structure and Nuclear Structure
FRI	7 Sep	GEF	Charged particle interactions
MON	10 Sep	GEF	Photon interactions
WED	12 Sep	FHF	Modes of Radioactive Decay
FRI	14 Sep	FHF	Decay of Radioactivity
MON	17 Sep	GEF	Problem Set 1 – Atomic Structure, Charged Particles, Photon interactions
WED	19 Sep	GEF	Radiation Detectors
FRI	21 Sep	GEF	Pulse-height spectroscopy
MON	24 Sep	FHF	Nuclear Counting Statistics
WED	26 Sep	DJD	Detection and Measurement, Counting Systems
FRI	28 Sep	SCM	Survey meters, dose, exposure
MON	1 Oct	DJD/GEF/FHF	Problem Set 2 – Radiation Detectors, Dose, Exposure, Counting Stats
WED	3 Oct	SCM/GEF	Lab–all day, HP measurements and gas detectors
FRI	5 Oct	FHF	Gamma Camera 1
MON	8 Oct		Columbus Day
WED	10 Oct	FHF	Gamma Camera 2
FRI	12 Oct	GEF	Collimators
MON	15 Oct	FHF	Gamma Camera QC
WED	17 Oct	GEF	Tomography
FRI	19 Oct	GEF	Tomography 2
MON	22 Oct	GEF	PET1
WED	24 Oct	GEF	PET2
FRI	26 Oct	GEF	PET/CT
MON	29 Oct	FHF	Problem Set 3 – Gamma Cameras
WED	31 Nov	JY	Basics of CT for PET/CT
FRI	2 Nov	FHF/DJD	Lab – all day, Planar gamma camera DJD

MON	5 Nov	FHF	Mid-Term Exam
WED	7 Nov	FHF	SPECT 1
FRI	9 Nov	FHF	SPECT 2
MON	12 Nov	FHF	SPECT QC
WED	14 Nov	SCM	Attenuation Correction – PET and SPECT
FRI	16 Nov	FHF/DJD	Lab – all day, SPECT
MON	19 Nov	GEF	Problem Set 4 –Tomography, SPECT
WED	21 Nov	FHF/GEF/MP	Lab – all day, PET
FRI	23 Nov		Thanksgiving
MON	26 Nov	GEF	Problem Set 5 – PET and PET/CT
WED	28 Nov	GEF	Quantitation and Lesion Detection in SPECT and PET
FRI	30 Nov	GEF/FHF	Review for Final
MON	3 Dec	GEF/FHF	FINAL EXAM
WED	5 Dec	GEF/FHF	Discussion/ Preparation for Debate