



Schedule – Fall 2004

Lecture	Day	Date	Topic	Lecturer	Reading Assignment [†]
–	Mon	8/23	<i>Lab Intro / Instrumentation Review</i>	MAG/KD/SL	57-62; 189-195
1	Wed	8/25	Principles of Nuclear Medicine/Radionuclides	MAG	5-6; 11-13; 22-26; 37-55; 157-158
2	Fri	8/27	Tracer Principle/Specific Activity	MAG	
–	Mon	8/30	<i>Pre-lab – I-131 Bioassay / Air Monitoring</i>	KDW	
3	Wed	9/1	Quality Assurance/Quality Control; Chromatography	MAG	175-182; 196-200
4	Fri	9/3	Generator Kinetics	MAG	160-162
5	Mon	9/6	<i>Labor Day – No Class</i>		
6	Wed	9/8	Patient Radiation Exposure & Safety	MAG	14-16; 184-189; 206-209
7	Fri	9/10	MIRD – Medical Internal Radiation Dosimetry	MAG	189
–	Mon	9/13	<i>Pre-lab – Kit Preparation</i>	KDW	
8	Wed	9/15	Imaging - Gamma vs. PET	MAG	64-78; 172-174; (242-268)
9	Fri	9/17	Sensitivity/Specificity; Intro. Inorg. Chem.	MAG	
–	Mon	9/20	<i>Pre-Lab – Quality Control</i>	KDW	
10	Wed	9/22	Intro. Inorg. Chem.	MAG	
11	Fri	9/24	Chemistry of Ga, In, Tc	MAG	542-545
–	Mon	9/27	<i>Pre-Lab – Preparation of MAA</i>	KDW	
12	Wed	9/29	Principles of Perfusion Imaging	MAG	
13	Fri	10/1	Pulmonary Perfusion/Ventilation	MAG	386-401
–	Mon	10/4	<i>Pre-Lab – Cardiac Imaging Agent I</i>	KDW	
14	Wed	10/6	Myocardial Perfusion	MAG	269; 405-412
15	Fri	10/8	Exam 1 (Lectures 1-14)	MAG	
–	Mon	10/11	<i>October Break</i>		
16	Wed	10/13	Myocardial Perfusion/Metabolism	MAG	424-436; 438-439
17	Fri	10/15	Myocardial Ejection Fraction/RBC Labeling	MAG	413-424
–	Mon	10/18	<i>Pre-Lab – Cardiac Imaging Agents II</i>	KDW	
18	Wed	10/20	Cerebral Perfusion/Metabolism	MAG	328-335; 342-344
19	Fri	10/22	Renal Imaging	MAG	475-489; 491
–	Mon	10/25	<i>Pre-Lab – Brain Perfusion Agents</i>	KDW	
20	Wed	10/27	RES & Hepatobiliary Imaging	KDW	459 – 463, 464 – 469
21	Fri	10/29	Lymphoscintigraphy and Gastric Studies	KDW	453 – 459
–	Mon	11/1	<i>Pre-Lab – Preparation of Sulfur Colloid</i>	KDW	
22	Wed	11/3	Thyroid and Parathyroid Imaging	KDW	354 – 364, 370 – 373
23	Fri	11/5	Therapy: Thyroid	KDW	364 – 370
–	Mon	11/8	<i>Pre-Lab – I-131 Compounding</i>	KDW	
24	Wed	11/10	Bone Imaging	KDW	494 – 511

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Lecture	Day	Date	Topic	Lecturer	Reading Assignment [†]
25	Fri	11/12	Introduction to Beta Emitters	SL	63-64
–	Mon	11/15	<i>Pre-Lab – Beta Emitters</i>	SL	
26	Wed	11/17	Therapy: Monoclonal Antibodies	SL	
27	Fri	11/19	Therapy: Bone Pain Palliation	SL	174-175; 511 – 516
28	Mon	11/22	Exam 2 (Lectures 16-27)		
–	Wed	11/24	🦃 <i>Thanksgiving Break</i> 🦃		
–	Fri	11/26	<i>Thanksgiving Break</i>		
–	Mon	11/29	<i>Pre-Lab – White Blood Cell Labeling</i>	KDW	
29	Wed	12/1	Infection Imaging - WBC and ⁶⁷ Ga-citrate	KDW	520 – 523, 536 – 551
30	Fri	12/3	Diagnostic Use of Mo. Antibodies and Peptides	KDW	
31	Mon	12/6	Tumor Targeted Agents	MAG	546-551
32	Wed	12/8	Miscellaneous Agents and Procedures	KDW	472 – 473, 525 – 530, 530 - 534
–	Fri	12/10	Miscellaneous Therapy Products	KDW	
–			Final Exam (Cumulative)		

[†]*Nuclear Medicine and PET Technology and Techniques, 5th edition*, D.R. Bernier, P.E. Christian, and J.K. Langan, eds., Mosby: St. Louis; 2004.

(Note that a glossary appears on pages 575-597.)

HINT: You will gain maximum benefit from the lectures, if you read the assigned text *prior to* the corresponding lecture. This will also serve to minimize the time required to prepare for labs and exams.

Also recommended: *Stedman's Concise Medical Dictionary for the Health Professional, 4th Edition*, Lippincott, Williams, and Wilkins, Philadelphia, 2001. (Note especially the 3-D graphical illustrations of anatomy available on the accompanying CD).

Division of Nuclear Pharmacy Web Page
(includes links to all NUPH course web pages)
www.purdue.edu/nuclearpharmacy

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NUPH 530: Laboratory Schedule – Fall 2004

Week	Day	Date	Laboratory Exercise
1	.Tues. Thurs.	8/24 8/26	Instrumentation Review; Introduction to Lab Procedures
2	Tues. Thurs.	8/31 9/2	I-131 Bioassay / Air Monitoring
3	Tues. Thurs.	9/7 9/9	Regulatory Review
4	Tues. Thurs.	9/14 9/16	Compounding of Radiopharmaceutical Kits
5	Tues. Thurs.	9/21 9/23	Quality Control
6	.Tues. Thurs.	9/28 9/30	Preparation of MAA
7	Tues. Thurs.	10/5 10/7	Preparation of Cardiac Imaging Agents I
8	Tues. Thurs.	10/12 10/14	<i>No Lab This Week (due to Octoberbreak)</i>
9	Tues. Thurs.	10/19 10/21	Preparation of Cardiac Imaging Agents II
10	Tues. Thurs.	10/26 10/28	Preparation of Cerebral Perfusion Agents
11	Tues. Thurs.	11/2 11/4	Preparation of Tc-99m Sulfur Colloid
12	Tues. Thurs.	11/9 11/11	Compounding of I-131 Therapy Capsules
13	Tues. Thurs.	11/16 11/18	Introduction to Beta Emitters
		11/24-26	No Lab This Week (due to Thanksgiving Break)
14	Tues. Thurs.	11/30 12/2	White Blood Cell Labeling
15	Tues. Thurs.	12/7 12/9	Lab Final Exam