

Diagnostic and Therapeutic Nuclear Medicine:

One Week Intensive Short Course

Monday, May 10

9:00	Introduction and Welcome
9:30	Nuclear Medicine – Basic Principles
10:00	Radionuclide Production and Distribution Cyclotron-produced Reactor-produced
11:00	Radiopharmaceutical Production and Testing
12:00	Lunch
1:00	Radiopharmaceuticals – Characteristics and Uses Diagnostic agents Therapeutic agents
3:00	Nuclear Pharmacies
4:00	The Drug Approval Processes

Tuesday, May 11

9:00	Nuclear Medicine – Facilities and Equipment Imaging devices – theory and operation
10:00	Miscellaneous – thyroid uptake measurements, others.
11:00	Quality Assurance Procedures
12:00	Lunch
1:00	Nuclear Medicine – In-vivo studies – organ systems – Diagnosis, Therapy Cardiovascular Pulmonary
2:00	Bone Renal
3:00	Neurology Endocrinology
4:00	Oncology Inflammation

Wednesday, May 12

9:00	Nuclear Medicine – Gastroenterology/Endocrine/Hematology
10:00	Radiation Safety Functions of key personnel Safe handling of patients
11:00	Protection of staff and visitors ALARA programs Area surveys Training

12:00	Lunch
1:00	Radiation Biology
	Mechanisms of damage to biological systems
	Stochastic vs. nonstochastic effects
2:00	Cell survival studies
	Recent developments – bystander effects, genomic instability
3:00	Radiation dosimetry – patients
	Standard dose estimates
	Patient-specific dose calculations
4:00	Pediatric and potentially pregnant subjects

Thursday, May 13

9:00	Regulatory aspects
	Licenses
	Reportable events
10:00	Transport and receipt of radioactive material
	Emergency procedures
11:00	Quality assurance programs
	Waste storage and disposal
	Records
12:00	Lunch
1:00	Afternoon – site visits

Friday, May 14

9:00	Discussion Period
10:00	Exam
11:00	Discussion of Exam Results
12:00	Course End