

Nuclear medicine education course Program 2023

Monday September 25th Basics of physics and radioprotection in nuclear medicine

9:00 – 9:10	Welcome and General Information
9:10 – 9:40	Nuclear Medicine in personalised medicine
9:40 – 9:55	Roles and responsibilities in a nuclear medicine department
9:55 - 10:15	Medical physics in nuclear medicine: Task of the medical physicist
10:15 – 10:45	Introduction to physics in nuclear medicine
10:45 – 11:30	Coffee
11:30 – 12:00	Introduction to nuclear medicine devices (imaging and non-imaging)
12:00 – 12:30	Radiation protection management in nuclear medicine
12:30 – 13:30	Lunch
13:30 – 14:00	Dosimetry in nuclear medicine & Radioprotection of patients
14:00 – 14:30	Dose optimisation and dose reference levels
14:30 – 15:15	Break
15:15 – 15:45	Image quality in nuclear medicine (PET, SPECT and CT)
15:45 – 16:15	Acceptance and stability control of imaging and non-imaging devices

Tuesday September 26th Practical-1: Radioprotection and image quality (IQ) optimization

9:00 – 09:30	Presentation of practicals
09:30 – 10:30	Group A: Radiation protection: contamination, NM department plans and design Group B: Radiation protection: risk assessment, radiological events and CIRS
10:30 – 11:00	Coffee
11:00 – 12:00	Group A: Radiation protection: risk assessment, radiological events and CIRS Group B: Radiation protection: contamination, NM department plans and design
12:00 – 13:00	Lunch
13:00 – 16:00	SPECT Practical (IQ assessment and optimization / phantom study)
13 :00 – 13 :15	Introduction
13:15 – 13:30	Phantom preparation (30 min) (group A and B together)
13:30 – 14:00	Group A : SPECT acquisitions (30 min) / Group B : NM service visit (30 min)
14:00 – 14:30	Group A : NM service visit (30 min) / Group B : SPECT acquisitions (30 min)
14:30 – 15:00	Break
15:00 – 16:15	Analysis of data (75 min) (group A and B together)

Wednesday September 27th Practical-2: Patient dosimetry in NM therapy

9:00 – 09:30	Presentation of practicals
09:30 – 10:30	Group A: Dosimetry: patient-specific dosimetry for therapy (case of Lu-177) Group B: Dosimetry: tools and practical examples
10:30 – 11:00	Coffee
11:00 – 12:00	Group A: Dosimetry: tools and practical examples Group B: Dosimetry: patient-specific dosimetry for therapy (case of Lu-177)
12:00 – 12:15	Closing

Venue:

Lectures will take place in the Department of Nuclear and Molecular Imaging of the Lausanne University Hospital (CHUV).