2022-2023

DRAD6206 – Molecular imaging and medical cyclotron

Topic	Teaching mode (e.g. Lecture, Tutorial, Lab, Practical)
S01: Physics of Molecular Imaging	Lecture
S02: PET Cameras	Lecture
S03: Data Acquisition & Performance Evaluation of PET	Lecture
S04: Image Reconstructions in PET (OSEM, AC and SC)	Lecture
S05: Quantitative Techniques in PET (SUV, Compartment & dynamic modelling)	Lecture
S06: Coregistration with Functional Images	Lecture
S07: Cyclotrons	Lecture
S08: Practical: Operation of a Medical Cyclotron	Lecture
S09: Radiochemistry 1 (Basic & Radiochemistry)	Lecture
S10: Radiochemistry 2 (C11 – Radiochemistry & Metal radionuclides)	Lecture
S11: Automated Synthesizer	Lecture
S12: Practical – Operation of automated synthesizer	Practical
S13: Radiation Dosimetry & Protection in PET	Lecture
S14: Pharmacy Rules & GMP	Lecture
S15: Quality Assurance in Molecular imaging	Lecture
S16: Practical: Quality Assurance and Acceptance Testing of PET-CT	Lecture
S17: Clinical Application of FDG PET	Lecture
S18: Clinical Application of C11 PET	Lecture
S19: Tracer Kinetic (Receptor Model, Gene Probes, Receptor Gene Imaging, multimodality)	Lecture
S20: Molecular Basis of new radiochemical development	Lecture

Assessment method: 40 % in-course assessment

30 % final examination

30 % others (please specify): Test

Classes to be held on weekday evening in the 2nd semester