



University of Pretoria Yearbook 2017

Radiochemistry and pharmacology 700 (RCF 700)

Qualification	Postgraduate
Faculty	Faculty of Health Sciences
Module credits	20.00
Programmes	BRadHons Nuclear Medicine
Prerequisites	No prerequisites.
Contact time	1 practical per week, 1 lecture per week
Language of tuition	Module is presented in English
Academic organisation	Radiography
Period of presentation	Year

Module content

Definitions, principles, concepts, terminology, notation. Production and purification of radionuclides. Generators: working knowledge, evaluation techniques, quality control. Technegas production. Radiolabelling methods. Characteristics and quality control of radiopharmaceuticals. Biodistribution, pharmacokinetics, metabolism of radiopharmaceuticals. Kit preparation. Diagnostic and therapeutic radiopharmaceuticals, requirements, radiobiological aspects and applications. Hot laboratory: Rules and regulations. Type A, B, C laboratories. Radiopharmacy construction and design. Radiation safety and protection. Relevant instrumentation and equipment hot and cold lab. Handling, storage and waste disposal of radioactive materials. Contamination and decontamination procedures. Radiopharmaceuticals: preparation, dose calculation and measurement. Molecular imaging. Adverse reactions and altered biodistribution.

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