University of Pretoria Yearbook 2019

Radiographic imaging 186 (RAW 186)

Qualification	Undergraduate
Faculty	Faculty of Health Sciences
Module credits	19.00
Programmes	BRad Diagnostics
Contact time	1 lecture per week, 1 seminar per week, 1 discussion class per week
Language of tuition	Module is presented in English
Department	Radiography
Period of presentation	Year

Module content

Introduction: Discovery of X-rays, processing principles, handling of X-ray equipment. X-beam: production of X-rays, attenuation.
Properties of the radiographic image: visibility and geometric properties.
Image formation: interaction between X-rays and the human body and subject contrast.
Primary exposure factors: mAs, kVp and SID. AEC. Principles of technique charts. Image recording: darkrooms, cassettes, intensifying screens, efficiency of rare earth intensifying screens and X-ray film construction.
Control of scatter radiation: production of scatter, effect of scattered radiation on the image, beam restriction devices, grids and grid efficiency.
Geometry: focal spot size, SID, OID, X-ray beam/body part/film alignment, influence of distances and other variables on the geometric properties of the image. Introduction to digital radiography.

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