University of Pretoria Yearbook 2020

Radiographic imaging 182 (RAW 182)

Qualification	Undergraduate
Faculty	Faculty of Health Sciences
Module credits	20.00
Prerequisites	No prerequisites.
Contact time	1 discussion class per week, 1 lecture per week, 1 seminar 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.