University of Pretoria Yearbook 2020

Diagnostic radiographic science 200 (RSC 200)

Qualification	Undergraduate
Faculty	Faculty of Health Sciences
Module credits	15.00
Programmes	BRad in Diagnostics
Prerequisites	RPH 100, RSC 100
Contact time	1 discussion class per week, 2 lectures per week
Language of tuition	Module is presented in English
Department	Radiography
Period of presentation	Year

Module content

Film evaluation. Application of technique factors, compiling of technique charts. Films, film technology, image formation and sensitometric properties. Processing, monitoring the processor and processing area. Darkroom, design and chemicals.
Digital image manipulation: Pre-Processing, Segmentation, Grayscale Processing, Frequency Processing, Reconstruction, Three-Dimensional Representations, Image Fusion/Registration, Computer-Aided Detection (CAD) and Diagnosis
Display technologies: Hard-Copy Printers, Film, Cathode Ray Tube (CRT), Liquid Crystal Display (LCD), Other Displays (e.g., Plasma, Projection)
Viewing Conditions: Viewing Distance, Image and Pixel Size, Workstation Ergonomics, Adaptation and Masking, Ambient Lighting and Illumination. Quality assurance of conventional, computed and digital radiography systems. Hospital integrated computer patient and imaging system and principles of system management in terms of information capture, display, storage and distribution.