RADT 116C : Radiographic Imaging Technology I

A discussion of the principles leading to the production of the manifest image. The general design of the x-ray tube as well as x-ray production and emission. Tube rating charts, factors affecting radiographic quality, grids, and accessories as well as fluoroscopy will be covered.
Credits 3
Lab/Practicum/Clinical Hours 2
Lecture Hours 2
Prerequisite Courses
RADT 103C
RADT 109C
RADT 180C
Co-Requisite Courses
RADT 159C
RADT 151C
Learning Outcomes

- Describe the photoelectric effect, Compton effect, their occurrence, and their impact upon the latent image carried by the remnant beam.
- Identify the visibility and geometric components of image quality (brightness, contrast, noise, sharpness, magnification, and shape distortion), and the variables that affect them (kVp, mAs, SID, OID, beam alignment, motion, grids, collimation).
- Describe what mAs and kVp control in the X-ray beam, and why mAs is considered the primary control for beam quantity and kVp is the primary control for beam quality.
- Describe the anode heel effect and the line focus principle and how they relate to visibility qualities of the image.
- Discuss all of the variables affecting exposure level, subject contrast, image noise, sharpness of detail, magnification, and shape distortion at the image receptor.