Digital Radiography and Fluoroscopic Radiation Safety for the Certified Radiologic Technologist

Fluoroscopy Review
8:00 a.m.
- Visual Physiology
- Image Intensifiers & Flat Panel Detectors
- Image Quality

9:00 a.m.
- Gains
- Automatic Brightness Stabilizers

Break 9:50 – 10:00 a.m.

10:00 a.m. – 11:30 a.m.
- Recording Systems
- Fluoroscopy Options
- The Fluoroscopy Exam
- Pediatric Fluoroscopy
- Biologic Effects
- QC Regulations

11:30 – 12 Noon
- Introduction to Digital Imaging – CR/DR

12 Noon – 1 p.m.

Digital Radiography
1:00 p.m. – 2:20 p.m.
- Physics of Digital Imaging
- DR & CR Image Capture, Extraction, and Processing

Break 2:20 p.m. – 2:30 p.m.

2:30 p.m. – 4:00 p.m.
- Image Evaluation
- Troubleshooting Acquisition Errors
- Artifacts in Digital Imaging

Objectives

- Explain visual pathology and its relationship to fluoroscopy.
- Discuss flux gain, brightness gain, and minification gain.
- Describe the components of an image intensifier.
• Identify the differences between image intensifiers and flat panel detectors in fluoroscopy.
• Discuss ways of reducing radiation dose to patients in fluoroscopy and digital imaging.
• Discuss the importance of the “Image Gently” concept in pediatric fluoroscopy and digital imaging.
• Distinguish between cassette-based (CR) and cassette-less (DR) digital imaging systems.
• Explain basic concepts of radiation physics and digital imaging.
• Identify digital artifacts and know how to correct them.