

PRINCIPLES OF SERVICING RADIOLOGY EQUIPMENT

The opportunities for today's service professionals in radiology maintenance are growing at a rapid pace. The success demonstrated by those biomedical and clinical engineering professionals who have made the transition to radiology service has expanded the scope of the profession to greater rewards.

This program is designed to demonstrate the process by which service professionals can expand and enhance their career in the radiology maintenance field. Emphasis will be placed on the needs and methods for entry into and progression within the profession.

Those who should attend are the Biomedical, Clinical and Radiology engineering professionals desiring to benefit from the increasing opportunities in radiology service.

- I. Introduction to Servicing Radiology Equipment
- II. Typical Diagnostic Imaging Systems
 - A. Chest
 - B. Radiographic/Fluoroscopic
 - C. Special Procedures
 - D. Cardiac Catheterization Labs
- III. Basic Radiographic Physics
 - A. What X-Rays Are
 - B. How X-Rays Are Produced
 - C. How X-Rays Are Controlled
 - D. How X-Rays Interact With Matter
- IV. Diagnostic Imaging Systems Overview
 - A. Radiographic System
 - B. Fluoroscopic System
 - C. Single Phase Control Block Diagram
- V. Factors which Affect Image Quality
 - A. Production of the X-Ray Beam
 - B. Formation of the Aerial Image
 - C. Film Screens and Processing
- VI. Diagnostic Imaging Circle of Quality Assurance
 - A. Acceptance Testing
 - B. Evaluations
 - C. Preventive Maintenance
 - D. Calibrations
 - E. CDRH Compliance Testing
- VII. Managing an Effective Diagnostic Imaging Maintenance Program
 - A. Maintenance Options
 - B. Parts Sourcing
 - C. Training
 - D. Test Equipment
 - E. Support