AbstractID: 7366 Title: Medical Monitor Technologies

Electronic display devices are now widely used for the interpretation of medical images. Excellent display performance characteristics are required so that the display device does not degrade the noise and detail present in a digital image. The performance requirements can be particularly demanding for the display of digital radiographs. This course will define the display requirements of a high fidelity device and relate these requirements to commercially available cathode ray tube (CRT) devices and active matrix liquid crystal display (AM-LCD) devices. Methods to measure display performance will be summarized and suggestions made for quality control monitors.

The specific educational objectives for this course are to:

1. understand the performance limits of the human visual system.
2. learn the design features associated with medical CRT monitors.
3. understand the performance characteristics of medical CRT monitors.
4. learn the physical principles of AM-LCD devices.
5. learn the specialized designs concepts being employed in medical AM-LCD devices.
6. understand the performance characteristics of medical CRT monitors.
7. understand how to measure the display performance of a device.