This is a physics-based approach developed for the technologist to understand the basics of CT image formation in conventional and MDCT systems. Discussions will include CT system components, image reconstruction concepts, parameters affecting image quality and dose, artifacts related to helical and MDCT systems, as well as Quality Control methods. A background knowledge of computed tomography methods, such as SPECT or CT will be helpful, but is not required. In CT imaging, it is important to understand the contributions to image quality from the imaging equipment, the scan parameters, the patient, and the display systems.