

Course Objectives/Course Outline
Spokane Community College

Course Title: Radiographic Principles III

Prefix and Course Number: RAD 145

Course Learning Outcomes:

By the end of this course, a student should be able to:

- I. Basic Principles of Digital Radiography
 - A. Digital image characteristics
 - B. Digital receptors
 - C. Comparison of detector properties and evaluative criteria
 - D. Dynamic range vs. latitude
- II. Image Acquisition
 - A. Raw data acquisition – “latent image”
 - B. Image extraction – cassette-less system
 - C. Exposure indicators
- III. Image Acquisition Errors
 - A. Histogram analysis error
 - B. Low intensity radiation response
 - C. Scatter control
- IV. Fundamental Principles of Exposure
 - A. Optimal receptor exposure
 - B. Exposure myths associated with digital systems
 - C. Control patient exposure
 - D. Monitor patient exposure
- V. Image Evaluation
 - A. Evidence of appropriate exposure level
 - B. Contrast
 - C. Recorded detail
 - D. Artifacts
- VI. Quality Assurance and Maintenance Issues
 - A. Uniformity of default processing codes
- VII. Display
 - A. Monitor
 - B. Film
 - C. Picture archiving and communication system (PACS)
 - D. Teleradiology
 - E. Radiographer’s responsibilities