

Master Syllabus

RAT 2442 - Radiologic Sciences II

Division: Health Sciences

Department: Radiologic Technology

Credit Hour Total: 4.0

Lecture Hrs: 3.0 **Lab Hrs:** 2.0

Prerequisite(s): RAT 1241

Other Prerequisite(s): AND Restricted to Majors

Date Revised: February 2014

Course Description:

Principles of digital imaging technology to include applications in exposure formulation, image quality factors and variables, and image management processes. Three classroom, two lab hours per week.

General Education Outcomes:

- Critical Thinking/Problem Solving Competency

Course Outcomes:

Digital Imaging Modalities

Identify digital applications associated with Computed Tomography and additional imaging modalities.

Assessment Method: Locally developed exams

Performance Criteria: 71% passing score

Quality Image Production

Describe quality image production differentiating between exposure factor selection and image quality factors.

Assessment Method: Locally developed exams

Performance Criteria: 71% passing score

Image Creation

Describe and differentiate between analog and digital image creation.

Assessment Method: Locally developed exams

Performance Criteria: 71% passing score

Image Quality

Differentiate between image characteristics and the impact of related variables.

Assessment Method: Locally developed exams

Performance Criteria: 71% passing score

Image Management and Storage

Describe and differentiate between image management systems and information management systems.

Assessment Method: Locally developed exams

Performance Criteria: 71% passing score

Outline:

Exposure Factor Selection, KVP, MAS, Distance, Filtration Image Creation, Analog and Digital Image Processing
Analyzing the Image; density, contrast, recorded detail, distortion
Image Management; PACS and RIS
Other Digital Modalities