RUTGERS
School of Health Professions

Department of Clinical Laboratory & Medical Imaging Sciences
Radiologist Assistant Program
MSRA 5230 Roles & Responsibilities in Radiology Procedures, Technique & Quality Care

Course Description

This course introduces the RA student to the clinical aspects of Radiology in a controlled environment or laboratory setting. The efficacy of invasive procedures is discussed in relation to the technical, pharmacological and radiation factors that increase the risk to the patient. A practical, hands-on approach is utilized to expose students to the intricacies of performing radiologic procedures. Topics such as patient preparation, contrast media, and specialized imaging equipment are covered in detail.

Credits/Modes of Instruction

3.0 Web Based

Prerequisites

This course is open to students in the graduate radiologist assistant program. All students should have the requisite technical skills for online learning. Students must have all the current recommended hardware requirements as specified for online learning through the Learning Management System. Registration for this course is contingent upon approval of the proposed independent study by the students' program director and the identification of the faculty mentor by the program director. Prerequisite course MSRA 5110, 5400, 5200, and 5120.

Course Goals and Objectives:

Goals

The course will impart knowledge about radiology procedures, and provide practitioners with the practical skills necessary to perform those procedures in a laboratory setting.

Objectives

1. Acquire and apply knowledge of the following aspects of radiologic procedures

·Anatomy & Pathophysiology
·Indications for Procedure
·Contraindications for Procedure

·Patient Assessment and Preparation for the Procedure
·Alternative and/or Complementary Procedures
·Access Methods and Closure Devices
·Patient Management During Procedure
·Operation of Diagnostic Equipment to Reduce Patient Exposure
·Contrast and Drug Administration
·Image Enhancement and Post-Processing
·Evaluation of Images for Diagnostic Utility
·Complications and Response to Emergencies
·Post-Procedure Patient Care
·Outcomes Measurement

2. Perform the following radiologic procedures under simulated conditions:

I. FLUOROSCOPIC STUDIES
II. CONTRAST MEDIA – NEEDLE – CATHETER PLACEMENT PROCEDURES
III. IMAGE POST-PROCESSING
IV. QUALITY IMPROVEMENT PROCEDURES

3. Assess the relevance of radiology procedures in relation to other diagnostic and therapeutic methods.