

Virginia Western Community College

RAD 251

Case Studies in MRI

Prerequisites:

RN, CNMT, ARRT Registered or Registry Eligible.

Course Description:

This course is designed to facilitate critical thinking skills for students during the delivery of MRI examinations for patients of all ages.

Semester Credits: 3**Lecture Hours: 3****Lab/Clinical/Internship Hours: 0****Required Materials****Textbook:**

MRI in Practice. Westbrook, Roth, & Talbot (2011). 4th Edition. Wiley-Blackwell.
ISBN: 9781444337433

Reference Manual for Magnetic Resonance Safety, Implants, and Devices. 2013 Edition.
ISBN: 9780974641096

Magnetic Resonance Procedures: Health Effects and Safety. Shellock, F. G. 2001

Other Required Materials:

Internet Access

www.MRIsafety.com

Course Outcomes

At the completion of this course, the student should be able to:

- Recognize the importance of adhering to magnet safety protocols
- Apply current methods of screening patients for MRI Examinations
- Discuss health related bioeffects of Static Magnetic Fields, Time Varying Gradient Magnetic Fields and Time Varying Radiofrequency Magnetic Fields
- Explain emergency procedures for quenching of magnet
- Summarize current contrast agent safety protocols
- Express current protocols for safety in scanning the following Critically Ill Patients, Pediatric Patients and Emergency Department Patients

Topical Description

Topics will include but not be limited to:

1	Magnet Safety and Bioeffects
2	Patient Assessment and Care Pediatrics Anesthesia in MRI
3	Contrast Administration and Safety
4	MRI of the Critically Ill Patient Emergency Department Protocols

Note to Instructors